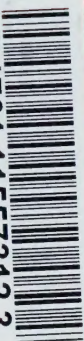


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GOVT PUBNS

ALASKA HIGHWAY PIPELINE INQUIRY

IN THE MATTER OF AN APPLICATION BY FOOTHILLS PIPE
LINES (YUKON) LTD. TO THE MINISTER OF INDIAN AFFAIRS
AND NORTHERN DEVELOPMENT FOR A GRANT OF THOSE
INTERESTS IN THOSE AREAS OF TERRITORIAL LANDS IN THE
YUKON TERRITORY AS MAY BE NECESSARY FOR THE CONSTRUC-
TION AND OPERATION OF THE SAID NATURAL GAS PIPELINE
AND THE WORKS AND FACILITIES CONNECTED THEREWITH AND
INCIDENTAL THERETO,

AND

IN THE MATTER OF A BOARD OF INQUIRY ON THE SOCIO-
ECONOMIC ASPECTS OF AN ALASKA HIGHWAY GAS PIPELINE.

BEFORE THE BOARD:

K.M. ILSYK, Esq., Q.C.

CHAIRMAN

WILLARD PHELPS, Esq.

MEMBER

MRS. EDITH BOHMER

MEMBER

P R O C E E D I N G S

VOLUME 31

WHITEHORSE, Y. T.

JUNE 28TH, 1977

CANADIAN ARCTIC
GAS STUDY LTD.

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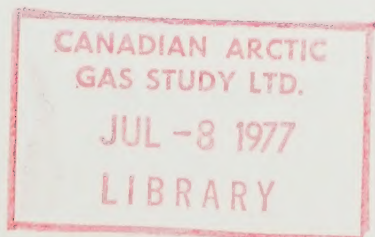
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1 Whitehorse, Yukon Territory

2 June 28th, 1977

3 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT).

4 MR. CHAIRMAN: Ladies and
5 gentlemen, I think we're ready to proceed. Mr. Goudge?

6 MR. GOUDGE: Yes sir, there are
7 some housekeeping matters to deal with this morning and if I
8 might sir, I'd go first and then Mr. Joe has one brief thing
9 to say and then Mr. Hollingworth. Mr. Dwyer, who as you
10 know Mr. Chairman and members of the Board, is here as an
11 observer for El Paso - has been good enough to provide me
12 with three documents which I've seen fit to file with the
13 Inquiry as exhibits because they relate to matters that
14 have been raised as matters of concern in the community
15 hearings that we have had.

16 The first is a letter from the
17 President of El Paso to the Prime Minister, Mr. Trudeau,
18 concerning certain aspects of the El Paso proposal and the
19 movement of tankers off the Canadian Coast. The second is
20 an article reprinted from the Scientific American on the
21 importation of liquefied natural gas. It has some comments
22 in it about the safety of transportation of gas in liquid
23 form by tankers. The third is Volume II of the El Paso
24 Environmental Report to the Federal Power Commission which
25 is their Liquid Natural Gas Safety Report.

26 Those reports all address matter

1 of concern that were raised in the community hearings and
2 for that purpose, if for no other, I propose that they be
3 tabled so they're available for examination.

4 (LETTER FROM THE PRESIDENT OF EL PASO TO THE PRIME
5 MINISTER, MR. TRUDEAU, MARKED EXHIBIT 67).

6 (ARTICLE REPRINTED FROM THE 'SCIENTIFIC AMERICAN'
7 MARKED EXHIBIT 68,.

8 (VOLUME II OF THE EL PASO ENVIRONMENTAL REPORT TO THE
9 FEDERAL POWER COMMISSION MARKED EXHIBIT 69).

10 Now sir, Mr. Joe indicated to
11 me that he has two pieces of evidence available here for
12 distribution. They will be available later on for those
13 that don't pick them up this morning in our offices over the
14 lunch hour. Mr. Joe, you might just indicate who those
15 authors are if you would please.

16 MR. JOE: Yes Mr. Chairman, I
17 have a Statement of Evidence by Project North and the
18 Executive Director of Project North which is to be presented
19 on the Panel Term Support, Southern Support of Churches and
20 it's to be -- the author is Tony Clarke who's the Executive
21 Director of Project North.

22 The other piece of evidence to
23 be filed in our -- in the Panel Term Social Economic Impact
24 and it's evidence filed by John Ultherias, who is the Legal
25 Counsel for Committee for Justice and Liberty Foundation.
26 That was just received late yesterday afternoon by special

1 delivery.

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MR. CHAIRMAN: Thank you Mr.

7

Joe.

8

MR. GOUDGE: Mr. Hollingworth

9

sir, indicated to me that he had a number of matters to

10

raise.

11

MR. HOLLINGWORTH: Yes sir,

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some matters going back to the first day of the Inquiry and

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carrying on from there. In Volume I on Page 58, Mr. Marshall

14

asked Mr. Burrell for the Alcan Pipeline Logistics Plan, in-

15

sofar as there would be any use of the Alaska Highway in

16

Yukon for the supply of the project in Alaska. The answer

17

is that no use is planned of the Alaska Highway within

18

Yukon.

19

Volume I on Page 176, Mr. Goudge

20

was cross-examining Mr. Burrell and asked for the results

21

of a risk analysis, showing the effect of financing on

22

the financing of a delay in startup. I have a document

23

entitled 'The Cost Overrun Study', Lemberg Consultants

24

Limited with Canuck Engineering Limited. It's dated

25

April the 25th, 1977, prepared for Foothills Pipe Lines

26

Limited and it has some amending pages that are attached to

1 it and I'd like to file that with the Inquiry.

2 In Volume III on Pages 420 and
3 421, Mr. Horton was cross-examining Mr. Ellwood with requests
4 for information as to additional vehicular traffic generated
5 on the Alaska Highway by the logistics movement and by -- he
6 was also concerned with traffic figures for the Haines Road.
7 I have two filings in that regard.

8 Sir, the second filing also
9 deals with traffic densities per day, passing Watson Lake
10 and copies of that are being sent to Mr. Martin in Watson
11 Lake in response to a request made by him at the community
12 hearing at that community.

13 In Volume VI on Pages 1083 and
14 1084, Mr. Bayly was addressing questions to Mr. Burrell and
15 asked if the accident rate of ninety-five which was quoted,
16 including the staging and logistics part of the construction
17 plan, the answer is that it does.

18 In Volume VI on Page 1089, Mr.
19 Bayly addressed some questions to Mr. Miller regarding
20 population movements and job transfers in and out of the
21 Yukon. We have a document which we'd like to file in that
22 regard.

23 MR. CHAIRMAN: I'm sorry, Mr.
24 Hollingworth, I didn't quite get the subject matter of
25 the last document you referred to.

26 MR. HOLLINGWORTH: That dealt

1 with population movements related to job transfers within
2 Yukon.

3 MR. CHAIRMAN: Thank you.

4 MR. HOLLINGWORTH: In Volume
5 VI on Page 1108, Ms. McPherson asked Mr. Burrell as to the
6 source of the seven per cent increase in welfare caseloads
7 as set out in the socio-economic statement. That was
8 answered yesterday by Mr. Miller in his evidence.

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1 In volume six on page 1132 and
2 1133, Mr. Taves was addressing questions to Mr. Miller
3 relating the capability of the common carriers for handling
4 inbound tonnage and outbound tonnage, particularly the
5 White Pass Railroad.

6 I have an answer I would like
7 to file. The answer briefly is that the transportation by
8 White Pass Railway peak at 65,652 tons during the summer of
9 1979 and the winter of 1979/80. Of this total 9,948 tons
10 represents fuel tonnage which could be handled by the
11 existing oil pipeline. The present capacity of the railway
12 is estimated at 200,000 tons annually, which is approximately
13 double it's present inbound tonnage.

14 In volume eight on page 1254, a
15 question was put by Mr. Goudge to Mr. Burrell related to the
16 cost of gas to communities if all systems, that is to say
17 the cost of laterals and distribution systems were rolled in,
18 that evidence was filed yesterday and discussed by Mr. Burrell.

19 In volume eight on page 1303, Mr.
20 Goudge addressed certain questions to Messrs. Saker and Ellwood
21 regarding the manpower management level as to whether the
22 figure was 226 or less than 200. In volume eight, section (b),
23 tab 19 of the application, the response to deficiency letters
24 the manpower requirements were set out for the applicants
25 quality assurance program. Most of the manpower required
26 for this function will not be located in Yukon, rather they

will be carrying out their inspection duties in pipe mills, compressor manufacturing shops, piping fabrication yards, and so forth. Part of the inspection forces under this program will be located in Yukon and will form part of the applicant's project management forces. The project management staff will peak at 75 in the summer of 1979 and 1980.

Then, sir, at the hearing in Watson Lake there was some questions put to Mr. Burrell with respect to damming of the Liard River. We have a letter from Westcoast Transmission Company Limited, specifically from Mr. Jack Cavanaugh, the Vice-president of Engineering, dated June 8th, 1977, we would like to file a copy of that letter with the Inquiry.

Lastly, sir, there were some questions put by the board to Mr. Ellwood regarding total construction manpower requirements for the Yukon section of the proposed line and we have some charts and graphs which I would also like to file with the Inquiry at this time.

Those are all the matters I have to deal with, sir.

(COST OVERRUN STUDY, LEMBERG CONSULTANTS LTD./CANUCK ENGINEERING LTD., APRIL 25, 1977, MARKED EXHIBIT 70).

(TRAFFIC DENSITIES PER DAY, PASSING PIPELINE MILEPOSTS 162, 215 AND 320 MARKED EXHIBIT 71).

(TRAFFIC DENSITIES PER DAY, PASSING WATSON LAKE AND HAINES JUNCTION, MARKED EXHIBIT 72).

(POPULATION MOVEMENTS RE. JOB TRANSFERS WITHIN YUKON, MARKED EXHIBIT 73).

1 (INFORMATION RE WHITE PASS RAILROAD TONNAGES MARKED
2 EXHIBIT 74)

3 (LETTER JUNE 8, 1977, WESTCOAST TRANSMISSION COMPANY
4 LIMITED TO J. BURRELL MARKED EXHIBIT 75)

5 (CHARTS RE CONSTRUCTION MANPOWER REQUIREMENTS FOR
6 YUKON SECTION MARKED EXHIBIT 76)

7 MR. CHAIRMAN: Thank you, Mr.
8 Hollingworth. Mr. Goudge?

9 MR. GOUDGE: Yes. Mr. Marshall
10 is ready to resume his cross-examination, sir.

11 H. MILLER, resumed:
12 J. ELLWOOD, resumed:
13 J. BURRELL, resumed:
14 J. B. MacLEOD, resumed:

15 CROSS-EXAMINATION BY MR. MARSHALL (CONTINUED):

16 MR. MARSHALL: Mr. Burrell, you
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26

Miller, Ellwood,
Burrell, MacLeod
Cr Ex by Marshall

3623

1 outline in answer eight of page seven that Foothills plan
2 to make natural gas available to Yukon communities.

3 Firstly you indicate that the
4 Alberta border price in effect at the time will now be the
5 price of natural gas at the community town gate.

6 Do I understand correctly, then,
7 that the price will be an arbitrary or a deemed price,
8 rather than one that's reflective of the actual cost of
9 the gas purchased from Prudhoe Bay producers?

10 MR. BURRELL: It will be the price
11 that -- it will be the price deemed the Alberta border price,
12 which is the price that applies to natural gas sold in all
13 markets other than Alberta.

14 Q Yes.

15 Next, there is to be no charge
16 to Yukon consumers for transporting the gas in the laterals
17 from the main line to the town gate.

18 A In the communities
19 mentioned, yes.

20 Q Could you tell me why
21 not, sir?

22 A Why not?

23 Q Yes. My understanding is
24 that the universal practice in the gas utility industry is
25 to charge customers for the cost of providing the transporta-
26 tion service?

1 A Well, there are
2 exceptions to that, Mr. Marshall, I think Trans-Canada is
3 an example where the cost of natural gas to distributing
4 companies east of Toronto are all in single rate zone, and
5 that includes the lateral which goes into the City of Ottawa,
6 so, I think there is precedent for this.

7 Q Well, sir, as I under-
8 stand it, this particular aspect of the scheme has been
9 changed from what it was when Foothills was talking about it
10 initially?

11 A Yes, our program has --
12 our gas to the communities program has been refined, that
13 is correct.

14 Q Was this change made
15 because it would be uneconomic if the users in the communities
16 had to pay the cost of service associated with the community
17 supply laterals?

18 A I think Mr. Marshall, one
19 of the policy positions of the Company is to, wherever it is
20 practical to do so, to make energy available from the line
21 at a reasonable rate as possible, and we saw this as an
22 advancement of our position to accomplish that.

23 Q Well, specifically
24 though, Mr. Burrell, had the consumers been charged with the
25 cost of service associated with the community supply laterals?
26 Would it render gas uneconomic in those communities?

1 MR. HOLLINGWORTH: To the consumer?

2 MR. MARSHALL: Yes, to the consumer?

3 A In the community of
4 Haines Junction, under the previous arrangement it would
5 have not been economic in our opinion to convert to natural
6 gas from fuel oil.

7 Q What about the other
8 communities?

9 A No, the other communities,
10 our studies showed that it would have been economic.

11 Q And that, I take it,
12 was an assumption that was based on the factors that you
13 discussed with Mr. Joe the other day?

14 A It's based upon the
15 best forecasts we have at this time.

16 Q Do you have, sir, a
17 description of the community laterals that are proposed to
18 be constructed by Foothills?

19 A A description -- in what
20 sense?

21 Q A map or something
22 which indicates the locations and the mileages?

23 A I don't have a map as
24 such. They are all relatively close to the pipeline.

25 Q Is there any document
26 that exists that would provide a description of what it is

1 that Foothills is proposing to construct in the way of
2 community supply laterals?

3 A As I say the distances
4 are relatively short and we haven't put them on a map as
5 such.

6 Q Is there any document,
7 sir, that I could look at that would tell me the mileages
8 and locations?

9 A I'm just looking to see
10 if the information which was filed as part of our socio-
11 economic statement indicated the mileage and the length.
12 To my knowledge there is no map which indicates where they
13 would be, but as I say, they are fairly short, so it didn't
14 seem to be particularly important.

15 Q I see. Well, as I
16 understood it, at the time you filed 5A, filed the application,
17 you were not advancing a proposal to deliver gas to Yukon
18 communities. You presented this as a possibility that --

19 A No -- it was advanced
20 as you recall. If you do recall the application, there
21 was a section in the statement which dealt with that, plus
22 part of that was a letter from Pan Alberta indicating their
23 willingness to provide that gas.

24 Q Well, sir, there was a
25 fundamental difference between the approach taken by Foothills
26 in the Mackenzie Valley where, as an integral part of it's

1 application, Foothills proposed to build gas supply laterals
2 to the communities. Now that situation wasn't paralleled
3 in the Yukon when the application was first filed, was it?

4 A When it was first filed,
5 the arrangement was that the gas would be available at an
6 Alberta border price at the main line. That's what was
7 included in the application.

8 Q Do you have in existence,
9 sir, a statement of the capital costs and the yearly
10 operating costs that would apply in connection with the gas
11 supply to the communities?

12 A We have estimates. We
13 had to have estimates to calculate the cost of the service
14 estimates.

15 Q I have looked at the
16 table that is appended to your evidence, sir, and it just
17 seems to have kind of a bottom line, I was wondering --

18 A Maybe if you look in
19 the filing of the socio-economic statement, you will find
20 that there are costs given.

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1 Q But sir, you did not
2 include costs of the laterals.

3 A Well, the cost of the
4 laterals are there. In 5A-6.8, page 5A - 6.16 of the
5 statement you will find estimates of the cost of the laterals
6 and the distribution facilities for that matter.

7 Q Well thank you, sir,
8 I will look at that table then.

9 I was wondering if Foothills has
10 done a calculation of what the actual cost of supplying the
11 gas to the Yukon communities would be if the gas were
12 purchased from Prudhoe Bay producers, and a tariff were
13 charged for the transportation of that gas to the laterals
14 and a tariff were also charged to recover the costs of the
15 laterals?

16 A We have made such an
17 estimate.

18 Q Well, then would you
19 be able to tell me, sir, what the amount of the annual
20 subsidy would be that's entailed in the scheme as you have
21 outlined it to supply gas to Yukon communities?

22 A The cost of rolling the
23 laterals into the main line, the cost reflected in cents
24 per mcf is so small you couldn't find it, Mr. Marshall.

25 Q I think you said that
26 yesterday, sir, but I was interested in a figure.

1 A I don't know how many
2 zeros there are behind the decimal point, but I can look it
3 up for you.

4 Q Both in the total capital
5 cost if you have it, sir, and the cents per mcf if that's --
6 if you have it that way as well.

7 A Yes, the capital costs,
8 of course, are in those tables, Mr. Marshall.

9 I know it's here, it just may
10 take me a few minutes to find it.

11 Q Well, sir, it would
12 be satisfactory if you would put it on the record at a later
13 date. What I'm interested in is what the total capital
14 cost is of providing the facilities, that Foothills intends
15 to supply, to provide gas to Yukon communities, and what that
16 works out to in terms of price per mcf, cent per mcf added
17 to the tariff to the American consumers who you are asking
18 to pay for this.

19 A As I said, the capital
20 cost of the facilities are -- have already been presented
21 in the document, the socio-economic statement. The other
22 number is here, it's just that I haven't been able to locate
23 it, that's all.

24 Q Sir, perhaps we don't
25 know how to read that table, but we're not able to find a
26 clear statement of what the capital costs are and we don't

1 know whether that table reflects the changes that you have
2 mentioned in your testimony. Would you be good enough to
3 put a figure on the record of the capital cost at some later
4 date?

5 A It's pretty simple here,
6 Mr. Marshall. For instance, in Watson Lake it shows the
7 lateral materials is \$173,736., the labour - \$432,281. for
8 a total of \$606,017. There's -- they are there for every
9 community here, so --

10 Q And what is the aggregate?

11 A It's just a case of
12 adding those up. These are in '76 dollars of course, it's
13 just a case of adding them up.

14 Q Have you got that figure
15 somewhere?

16 A Yes, I've got the figure.

17 MR. HOLLINGWORTH: Don't you have
18 a calculator Mr. Marshall?

19 MR. MARSHALL: No.

20 MR. HOLLINGWORTH: I mean, it's
21 as plain as day.

22 MR. MARSHALL: I think it's a
23 pretty straight forward request, I just want to know --

24 MR. BURRELL: Yes, I was trying
25 to raise that point.

26 Q What are you asking the

1 Americans to pay for? That's what I want to know.

2 A Well, the total cost of
3 the laterals, including the -- is about \$2.3 million. Now as
4 far as the effect on the cost of service, I still haven't
5 been able to locate that number, but it's a very small
6 number. It's point zero, zero, five, or something along that
7 line in cents per mcf. It's -- as I was mentioning before,
8 it's so small that you wouldn't be able to find it.

9 Q Even so, Mr. Burrell, --
10 I'm getting more help from you today
11 than I thought I would.

12 A I'll find it at the break.

13 Q All right. Thank you, sir.

14 I guess a couple of million dollars
15 may be small to you, but -- . Now sir, whatever the cost is
16 and whatever that translates to in terms of operating
17 costs yearly, or cents per mcf to the ultimate purchasers of
18 the gas, the scheme that you have outlined requires approval
19 of U.S. producers and shippers, does it not?

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Miller, Ellwood,
Burrell, MacLeod
CrEx by Marshall

1 A It's intended to be an
2 exchange arrangement. The way it would work is that gas from
3 the Prudhoe Bay field would be delivered into Yukon distribu-
4 tion systems and an equivalent amount would then be put back
5 into the line in Alberta so that, in actual fact, the U.S. pur-
6 chasers would not realize any loss in NMBTU's as a result of
7 this arrangement.

8 Q Well, I appreciate the
9 theory, sir, but what I'm interested in the steps that are
10 required in order to realize the scheme, bring it into fruition.
11 My understanding is that you'd need agreement of U.S. producers
12 and shippers before such a scheme could be enacted. Is that
13 correct?

14 A The arrangement was spel-
15 led out in the application that North West Pipeline made to
16 the Federal Power Commission. There was a statement, or a
17 section put into their application to cover that, so it is in
18 fact part of their application. It has been included. It has
19 been included in our testimony to the National Energy Board,
20 so I think the matters that you're talking about, Mr. Marshall,
21 have been covered.

22 Q Well, sir, you'd have to
23 buy the gas from someone and that would be a producer at
24 Prudhoe Bay or a shipper who bought Prudhoe Bay gas.

25 A You'd have to work on an
26 exchange arrangement, right.

Miller, Ellwood,
Burrell, MacLeod
Cr Ex by Marshall

3633

1 Q That hasn't been done?

2 A We've had discussions with
3 North West Pipeline. There's no problem. The final arrange-
4 ments would have to be made, but there'd be no problem in doing
5 it.

6 Q Well, sir, we'll get to
7 whether there'd be a problem or not in a few minutes. It
8 hasn't been done, as of now.

9 A There's been discussions
10 on it and, as I say, there's no difficulties anticipated. It
11 has been included in the filing to the FPC and the National
12 Energy Board. There have been discussions with the Energy
13 Resources Conservation Board of Alberta....

14 Q Do you have a shipper or
15 a producer who has said he will sell you the gas?

16 MR. HOLLINGWORTH: Excuse me, the
17 witness was still answering when you asked the question.

18 MR. MARSHALL: I'm sorry.

19 MR. BURRELL: We've arranged, we
20 have an arrangement with Pan Alberta Gas to make the gas avail-
21 able. We've had discussions with North West Pipeline. As far
22 as a final agreement, no, we don't have a final agreement, nor
23 do we have a permit for the pipeline, nor do you have a permit
24 for the pipeline.

25 Q First we're talking about
26 the Prudhoe Bay end of it, where the gas would come from. Do

Miller, Ellwood,
Burrell, MacLeod
CrEx by Marshall

3641

1 you have a contract with someone who owns gas there, who's
2 agreed to supply gas for use in the Yukon?

3 A We don't, but I don't
4 know if anybody has any contracts now.

5 Q That's fine, sir. That's
6 the first step I was interested in.

7 Sir, as my understanding is that
8 application was not made to the Federal Power Commission for
9 the delivery of gas which originated at Prudhoe Bay to com-
10 munities in the Yukon. Now can you tell me whether or not my
11 assumption, my information is right?

12 A There was a statement
13 made in the application that North West Pipeline made to the
14 FPC covering this matter.

15 Q Did they make an applica-
16 tion to remove the gas--- ?

17 A It was included as part
18 of their filing, indicated in the filing.

19 Q Well, Mr. Burrell, per-
20 haps I'm wrong and if I am, I'm sure you or your counsel will
21 correct me, but my clear understanding or recollection is that
22 at the time the proceedings were underway before the Federal
23 Power Commission, do such application was made. All that was
24 indicated was the possiblity that at some time, there may be
25 gas delivered in Yukon communities if some one wanted to build
26 laterals. Now, is my understanding abou that wrong?

1 A The matter is covered in
2 North West Pipelines application to the FPC for export/import
3 order, pursuant to Section 3 of the Natural Gas Act, Page 5
4 of the Application section and I have a copy of that particu-
5 lar page with me.

6 Q Can you tell me then
7 whether or not the statement I've made is incorrect?

8 A It says that in addition,
9 and they mention that in the introduction to this, they men-
10 tion that there will be fuel gas used in Canada for the trans-
11 portation of the gas, "in addition to the aforementioned vol-
12 umes, it is anticipated exchange volumes will be delivered to
13 a Canadian distributor for its use in serving certain communi-
14 ties such as Whitehorse and Watson Lake, located in the proximi-
15 mity of the proposed pipeline/in the ^{system} Yukon Territory."

16
17 Q And that's it, is it?

18 A No. "It is presently
19 anticipated under the exchange arrangement, volumes with
20 equivalent heating value will be redelivered at the Canadian
21 United States border to the Applicants or any other shipper
22 which may agree to such an exchange. There will be no effect
23 on the thermal quantity of gas to be received by the shippers
24 as a result of this exchange arrangement. A small amount of
25 fuel will be saved as a result of such an exchange arrangement
26 since the volume of the exchange will be small.

Miller, Ellwood
Burrell, MacLeod
CREX by Marshall

1 Q Well, Mr. Burrell, I put
2 it to you that both before the Federal Power Commission and
3 before the National Energy Board, there was no application
4 made to take Prudhoe Bay origin gas and deliver it to communi-
5 ties in the Yukon. All that was discussed as the anticipation
6 that this may, at some future, unspecified date, be done.

7 MR. HOLLINGWORTH: Well, sir, it
8 seems to me that Mr. Marshall is again getting into a legal
9 area. Surely the matter of whether the statement as read by
10 Mr. Burrell or whatever other statements might be contained
11 in the Alcan Pipeline application is a matter of law. Mr.
12 Burrell doesn't know what constitutes an application to the
13 Federal Power Commission. I don't see why he should be expect-
14 ed give a response, other than what he's given.

15 MR. MARSHALL: Well, perhaps
16 counsel can advise then, as to whether or not that's the case.

17 MR. HOLLINGWORTH: Well, I certain-
18 ly can't advise you now.

19 Q Perhaps you'd be good
20 enough to put it on the record?

21 MR. CHAIRMAN: Mr. Burrell, per-
22 haps you'd indicate whether the question is one that you feel
23 that you can answer or whether it's one that you're unable to
24 answer?

25 MR. BURRELL: As far as I'm con-
26 cerned, the intent of it is that this gas would be made avail-

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1 able under the arrangement that we talked about. And we so
2 spoke to that at the National Energy Board when we appeared.

3 MR. MARSHALL: Am I correct though
4 Mr. Burrell, that when you spoke to the NEB here about this
5 proposal, the supply of, supply by Foothills of laterals,
6 construction by Foothills of laterals, was not part of your
7 plan?

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1 A And, sir, it was a
2 matter which was discussed when we appeared before the
3 National Energy Board, I think the point was raised by
4 Mr. Edge and we implied that, in our opinion, it looked like
5 a reasonable thing to do in negotiation with the --

6 Q Mr. Burrell, your
7 capital cost estimates did not include the cost of building
8 laterals to supply gas to Yukon communities?

9 A No, they didn't.

10 Q And that's the case,
11 both in the proceedings before the National Energy Board
12 and proceedings before the Federal Power Commission, there
13 was no application made for those facilities was there?

14 MR. HOLLINGWORTH: He's getting back
15 to the same question I took objection to before, sir.

16 MR. MARSHALL: Well surely he
17 knows if they have included it in their capital -- ?

18 MR. BURRELL: They weren't
19 included in the original estimates, no, --

20 Q Thank you.

21 A -- but as far as we're
22 concerned, the amount is such that it's a matter that can
23 be dealt with at the time the finalization of the permit is
24 made. We see no difficulty at all in it. There will be
25 other matters that have to be discussed, this is just one
26 of them, and we feel it's an appropriate thing to do.

1 or we wouldn't have advanced it.

2 MR. CHAIRMAN: We seem to have
3 established reference was made to the laterals in the materials
4 that were presented. They were not included in the capital
5 cost figures, Mr. Marshall --

6 MR. MARSHALL: I think that's it,
7 sir.

8 MR. CHAIRMAN: -- if that completes
9 your line of questioning?

10 MR. MARSHALL: Yes.

11 Q Mr. MacLeod, I have
12 some questions for you, sir, about secondary employment. I
13 understand that you have adopted an employment multiplier
14 of 1.0. That is for every direct pipeline operations
15 position held by someone residing in the Yukon, you predict
16 there will be one additional job in the service sector?

17 MR. MACLEOD: Yes.

18 Q However, for the
19 construction phase, you did not follow that approach?

20 A No, I did not.

21 Q If I understand
22 correctly, your answer to question six, you chose a multiplier
23 of 0.7?

24 A Yes.

25 Q And further, rather
26 than applying that to the total direct employment, which in

1 1980, if I look at your Table 1, peaks at 2,448. Instead
2 of applying the multiplier to that figure, you chose instead
3 to apply it to 600, being the number of Yukon residents you
4 consider would be employed directly by the project?

5 A Yes.

6 Q And do I understand
7 correctly then that you have no multiplier applied to the
8 balance of the direct employment?

9 A Well, that's correct,
10 except the multiplier, which is applied to the 600, includes
11 the effect of the other -- that the remaining people would
12 have.

13 Q Well, sir, you applied
14 a multiplier to the 600 and I understand that.

15 A Yes.

16 Q But I couldn't find any
17 multiplier that was applied to the balance of the direct
18 employment, which, taking the 600 away from the 2,448, would
19 be 1,848.

20 A That's right.

21 Q Okay. Now, let's turn
22 to that 1,848 direct --

23 A Just one other point I
24 would like to make here, that the total of 2,311 includes
25 related employment. There is some spin-off employment
26 included in there. There are some contracts which could be

1 held by local business people in the 2,311. So, the effect
2 of the overall operation on the local economy is reflected
3 to some extent in the 2,311.

4 Q Sorry, you said 2,311?
5 Where does that figure come from?

6 MR. HOLLINGWORTH: That's 1980
7 construction total, Mr. Marshall.

8 A If you'll notice in the
9 table, I refer to direct and related employment. So that
10 would be Foothills direct employment plus other jobs which
11 could either be done directly by the company or by local
12 businesses. Also you are referring to a total of 2,448,
13 I believe, less 600.

14 MR. MARSHALL: Oh, I see. That
15 includes some Westcoast?

16 A Yes.

17 Q But those would be people
18 in the Yukon, would they?

19 A With Westcoast, yes.

20 Q Yes. Sir, can you tell
21 me. Of that figure 2,311 that you have as Foothills construc-
22 tion in 1980, how many of those would be working on the
23 pipeline and the compressor stations and the logistics
24 operations, and how many would be in a category of related
25 or induced?

26 A Well, I have here a break-

1 down of construction manpower requirements, if I can read
2 this out to you. In 1980, for example in the winter and
3 summer, the project management and inspection will employ
4 seventy-five people. The pipeline itself will employ
5 1,430 in the winter, 1,626 in the summer. The compressor site,
6 the sites and access roads will require 68 people in the
7 summer; the hauling of granular material will require 10
8 people in the summer; additional personnel in compressor
9 stations will be 80 in both winter and summer and logistics
10 in 1980 in the winter it will be 411 people, in the summer -
11 452.

12 Q Those are the categories
13 that go to make up your figure of 2,311, are they?

14 A Yes.

15 Q Well isn't all that
16 really direct pipeline employment? They are all necessarily
17 incidental things to the building of the pipeline?

18 A When I talk about direct
19 pipeline employment, I'm referring to the pipelaying operation
20 itself. Those highly specialized jobs. They cannot be done
21 by local businessmen.

22 Q You leave out management
23 and logistics and that sort of thing, do you?

24 A Well, it would include
25 management, the specialized management in pipelaying operations.

26 Q And inspectors?

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1 A If you take something
2 like gravel hauling, that's something that could be done by
3 a local business, or directly by the prime contractor.

4 Q But in any event, we end
5 up with the figure of 2,311 people employed on those
6 operations related to the installation of a pipeline that
7 you have outlined to me in your answer a few moments ago?

8 A Yes.

9 Q Now, sir, if we -- we
10 were discussing a minute ago that you had applied a multiplier
11 to 600 of the total pipeline direct, related and induced,
12 and that there was no multiplier applied to the others.

13 A Well, that's not completely
14 correct. Because, for example, in 1980, we have total
15 manpower requirements of 3,005. You're suggesting that
16 the multiplier is applied to only 600 people, and there's
17 no multiplier applied on the difference of 2,400. But the
18 2,400 does include 137 O & M people for which there is a
19 multiplier of 1.0.

20 Q Right.

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1 Well, I was dealing with your
2 direct and related -- your total of two thousand four
3 hundred and forty-eight people. You have a multiplier
4 applied to six hundred of those as I understand it, and for
5 the balance of eighteen hundred and forty-eight, you don't
6 have a multiplier, is that correct?

7 A There's a multiplier
8 of .7 applied to six hundred.

9 Q Right.

10 A And a multiplier of
11 1.0 applied to one thirty-seven. A hundred and twenty-five,
12 Foothills and the twelve, Westcoast.

13 Q Your hundred and
14 thirty-seven are under the induced portion of your table?

15 A Yes, but our
16 multiplier is applied to the one thirty-seven.

17 Q Right.

18 A That's the one
19 relationship, you see the same number in the both categories.

20 Q What's the number of
21 pipeline direct and related for which you have no multi-
22 plier in that year, 1980?

23 A Well, the twenty-four
24 forty-eight, less one thirty-seven, less six hundred, but
25 I'm saying that some proportion of that residual is actually
26 spin-off employment. It is work that is being done by

1 local contractors.

2 Q Well, it may be I
3 suppose, sir. You seem to be operating under a different
4 definition than my advisers as to what is direct pipeline
5 and what isn't. So we end up making that subtraction then
6 with the figure of seventeen hundred and eleven, is that
7 correct?

8 A I didn't make the
9 calculation, but it seems right.

10 Q I'm advised that's
11 the figure.

12 MR. HOLLINGWORTH: He has the
13 calculation now.

14 Q I note that if you
15 look at your Table I, you have within that group, about
16 forty-five construction people who are in town and the
17 balance are shown as being in camp. You note that?

18 A Yes.

19 Q Surely for those
20 persons who are not living in the camps but rather in the
21 communities, you must have some multiplier to account for
22 secondary employment generated by their presence in the
23 communities?

24 A Yes.

25 Q Would you agree with
26 a multiplier of 1.0 which you've used for your O & M

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1 purposes?

2 A That might be a little
3 on the high side, yes, because those people will only be
4 around for well, three years. I don't know if that's
5 going to warrant expansion of the infrastructure.

6 Q I see, well --

7 A At least a proportional-

8 Q They're not likely
9 to be the sort of people who would be prepared to stay in
10 tents for three years though?

11 A No.

12 Q These are all
13 presumably well paid people working on the pipeline and
14 they have a demand for local goods and services?

15 A Yes.

16 Q And they're living
17 in these towns as you've indicated. Can you suggest an
18 appropriate multiplier to be applied to that?

19 A I think somewhere
20 between .7 and 1.0.

21 Q I see.

22 A Of course, they're
23 going to need housing, so new buildings will have to be
24 put up for that. I don't think that the grocery stores
25 are going to add another aisle because of these people,
26 because they're only going to be there for three years.

1 The local businessman will try to get a greater utilization
2 of its existing capacity for that temporary upsurge.

3 Q He may have to buy
4 a truck and hire a truckdriver to haul in more goods more
5 often to meet this extra demand.

6 A Well, I think the
7 forty-five is fairly small compared to the rest.

8 Q But in any event,
9 there should be some multiplier applied to those people
10 in town. Now, let's turn to the group that's left then
11 in the camps. Would it be fair to say that by adopting,
12 no multiplier for this large group of construction workers,
13 you have in effect, assumed they will be in a sterile
14 isolated environment and that they will have no impact
15 whatsoever on the economy of the Yukon?

16 A No, I'm not saying
17 that at all. If this were the case, if they were totally
18 isolated and no effect, the multiplier would be zero.

19 Q Yes, and that's what
20 you've assumed?

21 A No, I haven't. For
22 example, let's say -- well, we plan on having tavern
23 facilities in the camp. That could be done directly by
24 the main contractor or it could be tendered out to local
25 people. If it's tendered out to local people, it becomes
26 secondary. It would be included in the twenty-three eleven.

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1 Q Yes sir, but for this
2 group of seventeen hundred and eleven in 1980, construction
3 workers in the camps, you have no multiplier in your table.

4 A I have no explicit
5 multiplier because I maintain in my twenty-three eleven,
6 includes some impact of these people.

7 Q Those are all jobs
8 that Foothills would have to do itself unless it contracted
9 somebody in the community to do them.

10 A Yes. Because really,
11 a multiplier is only an indication of potential. Now, if
12 you moved in pipe fabricating facilities into the Yukon,
13 you might have a multiplier of 10.0. The question is, how
14 much of this potential do you want to capitalize on, how
15 much do you want to have in the Yukon Territory.

16 Q That's precisely the
17 issue sir, and I put it to you this way. For this group
18 of seventeen hundred and eleven construction workers living
19 in camps in the summer of 1980, you have no multiplier and
20 what means is, you've assumed that there is going to be
21 no interaction whatsoever between that group and the Yukon
22 economy. If there were going to be an interaction, you'd
23 have to have some sort of a multiplier.

24 A I have not made that
25 assumption. You can use other methods other than using
26 a multiplier to derive secondary employment. A multiplier

1 is not the only approach. As a matter of fact, as I recall
2 in your N.E.B. evidence, you used a relationship between
3 primary and secondary versus tertiary and tertiary employ-
4 ment. That was not a multiplier approach.

5 Q Can you tell me what
6 the secondary employment derived from - the twenty-three
7 hundred and eleven is or the seventeen hundred and eleven
8 which we've netted out to. What is the secondary employ-
9 ment that's related to that seventeen hundred and eleven
10 and where do we find it in your table?

11 A You can't find it in
12 the table.

13 Q That's what we thought.

14 A No, because the point
15 is, there will be twenty-three hundred and eleven jobs.
16 All of those jobs could be under the direct control or
17 handled, filled directly by the prime contractor and the
18 applicant. Or alternatively, a large portion of these
19 jobs could be farmed out to local businessmen.

20 Now, I don't know which
21 portion will be farmed out. It would depend on what --
22 how independent the local people are.

23 Q Let me try again.
24 With this seventeen hundred and eleven, if you supported
25 them out of Edmonton completely with a fly-in operation
26 and you had in effect, sterile isolated camps, the

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1 secondary employment generated by the activities of these
2 seventeen hundred and eleven would all be felt in Edmonton.

3 A Yes.

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1 Q Now you're telling me
2 that there may be some of that activity going on in the
3 Yukon, rather than going on say from Edmonton, and they may
4 get some local support. But surely if they get some local
5 support, you've got to apply a multiplier to that. The
6 multiplier is really a proxy for describing interaction
7 between the primary activity that's going on and what's
8 generated in the community that's supporting that, or inter-
9 related with that?

10 A Okay, let's go back to
11 the example of the camp tavern. There's going to be a tavern
12 no matter what. Whether people are isolated from the
13 communities or not, there's still going to be a tavern. Now,
14 if the tavern is run by a local businessman, who bids on the
15 contract and obtains it, then it's going to be secondary.
16 Then you could see it in terms of multipliers. If that
17 tavern is run by the contractor -- if that tavern is run by
18 the contractor there is no purpose in putting a multiplier
19 on it.

20 Q I have great difficulty
21 in understanding that. You are telling me that if it's done
22 by Foothills it's direct, but if it's done by a local person
23 it is secondary. Surely, that's --

24 A It's just a matter of
25 definition. The job is still there. It just depends on what
26 you want to call it.

1 Q The difference is this
2 though, isn't it; if it's being supplied out of Edmonton by
3 air, and there's no contact with Yukon whatsoever, then
4 there is no multiplier in Yukon. On the other hand if you
5 are getting locals involved and there are opportunities for
6 local businesses to run taverns, to do trucking, to supply
7 food, catering, whatever, you have to apply a multiplier to
8 that, because for each job created in any of those activities,
9 within Yukon, there is going to be a multiplier that has to
10 take into account the additional jobs that are induced as
11 a result of that economic activity.

12 A Okay, as a matter of
13 interest, and another point in the evidence. I would suggest
14 that if you relate the secondary employment obtained from
15 this approach to the total number of direct jobs, it's the
16 equivalent of applying a multiplier of .18 to the entire
17 construction force of 2,311.

18 Q Now, I think you're
19 getting somewhere.

20 A Well that solves your
21 problem.

22 Q And that's what you
23 think is the appropriate multiplier that would be used --

24 A I also plug in Yukon
25 values into my Mackenzie Valley multiplier model. I came up
26 with a value less than .18, considerably less. But I think since

1 the Yukon infrastructure is more developed --

2 Q Yes.

3 A -- I arbitrarily increased
4 it.

5 Q To .18?

6 A I think .18 is reasonable.

7 Q And that would apply to
8 all direct and related pipeline jobs?

9 A Yes. Well, the operations
10 of course, has a separate multiple.

11 Q Yes, we're talking just
12 about the construction period here.

13 A Yes, and as I recall,
14 I think you people used a multiplier of .2 in the Mackenzie
15 Valley.

16 Q Mr. MacLeod, could you
17 turn to the bottom of page five of your testimony. There's
18 a quotation that I would like to read to you. You say this:

19 "Specifically using the unemployment rate as
20 a proxy for labour market conditions, in-
21 migration is likely to occur up to the point
22 that the unemployment rate in the receiving
23 region rises to the rate in the area to
24 which the in-migrants originate, subject to
25 some time lag between the attainment of this
26 unemployment rate and the recognition of that fact."

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1 Have you found that, sir?

2 A Yes.

3 Q I then turn to page nine
4 and noted the following statement:

5 "I personally believe that the true average
6 unemployment rate over the past year in the
7 Yukon has probably been in the order of twenty
8 to twenty-five per cent, with natives accounting
9 for about one-half."

10 Is that right?

11 A Yes.

12 Q And then on page six,
13 you indicate that the unemployment rate in southern Canada
14 will probably be in the 7.5 to 8 per cent range at the time
15 the applicant's construction activities are scheduled to
16 commence?

17 A Yes.

18 Q That's where my
19 confusion started, sir, because putting that all together,
20 the conclusion I drew was that during pipeline construction,
21 there would be a movement of peoples from the Yukon to
22 southern Canada, particularly places like Alberta, where the
23 unemployment rate was low?

24 A Well, as I said earlier,
25 there's is considerable upward bias in all of my projections.
26 It would be nice to assume that the unemployment rate would

1 hit a peak here of eight per cent. But I think that, you
2 know to be on the safe side I used a higher number.

3 Also, there's a portion of the
4 in-migrants who are not motivated by economic considerations.
5 They will be attracted to the Yukon, but not to any other --
6 well, not to Alberta, let's say.

7 Q Have you any handle on
8 how many peoples are in that category, that is not being
9 attracted by, or affected by, economic consideration?

10 A Well, I think it's a
11 fairly fixed number, as I said yesterday. It's primarily
12 composed of students.

13 This year for example, in
14 Whitehorse, I think there's about 1,500 people now looking
15 for work, these are recent arrivals. They obviously aren't
16 motivated by economic consideration because it's well known
17 there is not much work here right now. This is a fairly
18 fixed number and whether there's a project or not, they are
19 still to come. They were here five years ago and ten years
20 ago.

21 Q But when there is a
22 project, the number is likely to go up?

23 A People in that category
24 will not be any more numerous I don't suspect.

25 Q People in the category
26 of those looking for jobs, though, will go up?

26 A The unemployment rate in

1 the Yukon and the rest of the country tend to move in the
2 same direction.

3 Q But there is a gap?

4 A There's a gap, yes, there
5 is a gap between Alberta and Saskatchewan all the time too,
6 and between Ontario and Quebec.

7 Q And there's a pretty
8 dramatic gap presently between Alberta and Yukon?

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1 A Yes and as a result,
2 no one from Alberta is coming to the Yukon.

3 Q Is everybody from
4 Yukon going to Alberta? Isn't that what your theory really
5 means?

6 A There has, but I
7 have found out from Territorial Government, that over two
8 thousand people left the Yukon last year, so people are
9 leaving. I find here that the labour supply is very
10 elastic. As work opportunities become more numerous in
11 the summer, the labour force expands and at the same time
12 it contracts in the winter. So people do come and go as
13 the employment market differentials operate.

14 Also in the last couple of
15 years here in the Yukon, the number of job opportunities
16 has decreased and as a result, the number of people
17 registering at Canada Manpower Centre have been decreasing.
18 That to me is an indication that in-migration has fallen
19 off in the last two years.

20 Q It's true though, is
21 it not sir, that there has been a movement of people
22 whether seeking jobs or simply transient into the Yukon,
23 notwithstanding the fact that unemployment here has
24 generally been higher than it has been south of 60?

25 A But these are the
26 romantics primarily which are coming -- the people whose

1 main motivation is non-economic. They're going to come here
2 no matter what's going on.

3 Q Yes. Have you any
4 knowledge as to what happened in Alaska during the Alyeska
5 construction, in terms of the influx of speculative job
6 seekers or transients?

7 A I understand that in
8 the peak year, something like fifty-six thousand people
9 went to Alaska.

10 Q I see.

11 A They had to go there
12 if they wanted any work at all, since the hiring halls were
13 in Fairbanks.

14 Q Do you know how many
15 of those were looking for jobs as opposed to merely being
16 transients?

17 A No I don't. I would
18 suspect that a higher proportion of people going to Alaska
19 were motivated by economics.

20 Q I see. Sir, you deal
21 on Pages 7 and 8 with the numbers of unemployed -- unemployment
22 rate and you say in answer 11, that the unemployment rate
23 in the Yukon should remain fairly constant.

24 I suppose though, if the total
25 employment is going up and the unemployment rate is
26 remaining as a fixed percentage, the total numbers of

1 unemployed would in your judgement, be going up?

2 A Once again, this is
3 an example of more upward bias. I have evidence which
4 indicates that seems to suggest that the unemployment has
5 actually gone down in Alaska during the peak construction
6 period, but I wasn't placing too much weight on that. On
7 the other hand, I took a negative point of view, a very
8 conservative point of view and I said it won't change. It
9 won't go down, but I think I could have tried to argue
10 that the unemployment rate would have gone down.

11 Q Well, if the unemploy-
12 ment rate doesn't go down and that's the assumption that
13 you've made, then there will be more unemployed persons
14 in Yukon.

15 A Yes, but I think if
16 you made the calculation, it would be less than a hundred
17 people.

18 Q Do you know what has
19 happened in Alaska in this regard. You made some reference
20 to it earlier on.

21 A Well, I have a graph
22 which indicates the number of unemployment insurance
23 recipients during that construction phase - '73 to '76,
24 and there was a downward trend.

25 Q Sir, I'd like to
26 take a look at that because the information that you have

1 is contrary to that which my advisers have.

2 A Well, I have a
3 Fairbanks Impact Centre Report with me.

4 Q Well, perhaps we
5 could have a look at that. Mr. MacLeod, you could give
6 that to me later. Do you have the State Department of
7 Labour unemployment figures?

8 A No I don't.

9 Q Now sir, you stated
10 at Page 8 in answer 12 quote,

11 "I would like to stress that estimating the
12 unemployment rate for the Yukon is a very
13 hazardous task which is subject to consider-
14 able discussion and error."

15 Given that sir, why did you
16 use the unemployment rate as the basis upon which to
17 develop your in-migration estimates if it was that
18 hazardous?

19 A Well, I don't know
20 of anyone in the world who's ever tried to project in-
21 migration. You can project the number of jobs, how many
22 people will be required, but it's very difficult to
23 determine just who's going to come on speculation. So
24 there is some risk involved in those kinds of calculations
25 obviously.

26 Q Wouldn't there be

1 some other techniques that could be employed. I'm not
2 knowledgeable in these areas, but couldn't one talk with
3 people who are involved in the provision of social services,
4 providing hostel services and that sort of thing. Try to
5 get some indication as to numbers of transients that are
6 coming to the area right now?

7 A Yes, I did that.

8 Q You did that?

9 A Yes, I also did ^{it in} Fort
10 McMurray, Fort Nelson, Grand Prairie, Edmonton.

11 Q What about applications
12 for employment at mines and so on, here in the Yukon. Did
13 you attempt to get any information on that?

14 A Yes, I do have infor-
15 mation on that.

16 Q Does not this infor-
17 mation enable you to arrive at some sort of an estimate on
18 in-migration that's free of the hazards you say that you
19 have in using the unemployment rate?

20 A No, I see more
21 hazards in the approach you're suggesting, because if there
22 is only one project in town, if there is only Whitehorse
23 Copper that's hiring people, everyone who comes to town is
24 going to knock on Whitehorse Copper door.

25 If you have five projects in
26 town, they're going to be spread out, they're going to get

1 different data, so it's very difficult to compare right
2 now, the number of people knocking on the door of Whitehorse
3 Copper, with the number of people that might knock on the
4 door of a two thousand man construction camp.

5 Q So you tried another
6 approach and you found it didn't work?

7 A I was looking at
8 Alberta experience - Fort McMurray experience. Those are
9 concrete situations.

10 Q Did you try in the
11 Yukon though? Did you come up here and work through some
12 of these agencies, check to see what was happening in
13 terms of inquiries for employment and so on.

14 A Yes I have and that's
15 what I just said a few minutes ago, that the number of
16 registrants at Canada Manpower have fallen off in the
17 last two years. At the same time, the number of jobs has
18 not grown very significantly in the last couple of years.

19 Actually, my whole hypothesis
20 there is based on the idea of replenishment. Someone gets
21 a job and he's going to be replaced by someone else. Now,
22 as a matter of fact, I found those unemployment figures
23 we're referring to. I have here, the Fairbanks Pipeline
24 Impact Information Centre Report No. 21, dated October 15th,
25 1975, and they give the insured unemployment rates for
26 '73, '74 and '75. These are monthly figures, so do you

1 want them all? Thirty months or --

2 Q Actually, I'd just
3 like to have a look at the document.

4 A Yes. Well, you can
5 clearly see a downward trend as construction progresses.

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1 Q Thank you, I'll take a
2 look at that at the break.

3 Turning to page ten,
4 sir, you talked about speculative job seekers. You say,
5 near the bottom of the paragraph, that's an answer/question
6 13. "They nevertheless place a demand on the local infra-
7 structure in the same way as conventional tourists and
8 therefore must be considered for planning purposes," and I
9 think you mentioned the other day that these transients are
10 in effect just like tourists, would be indistinguishable
11 from tourists.

12 A I think perhaps their
13 spending patterns might be a little different. They might
14 be less inclined to buy souvenirs but --

15 Q Well, isn't that a
16 point, sir, aren't the spending patterns likely to be dram-
17 atically different?

18 A No, not dramatically
19 different. The town of Inuvik prepares population estimates
20 every year and that comprises the total resident, the normal
21 resident population which might be, say three thousand in
22 any given year, and to that they add in the total hostel and
23 hotel capacity, which might be, say two hundred rooms. The
24 reason why they do this is because of sewage and drinking
25 water and garbage disposal, and these type of services have
26 to be provided for those two hundred spaces. It's quite ir-

1 relevant to the Town of Inuvik whether these people are
2 different every day or whether or not they're the same people
3 all along. I see a parallel here.

4 Q There's quite a dif-
5 ference though in the effect on the local economy as to
6 whether one is a transient or one is a tourist, is there not,
7 in terms of spending power, for example? Surely the average
8 tourist here in Whitehorse is going to leave much more money
9 in the local economy than the average transient?

10 A Well, no, quite a few
11 just come in on the train at night and leave the next morning.
12 They're in campers and I notice quite a few are Alaska-bound
13 and they seem to spend as little time as possible here, and
14 these bus tours which go through don't seem to stop for
15 anything more than a night's sleep.

16 Q Mr. Miller, do you
17 have any relevant statistics on that, is there a difference
18 between the effect that transients have on the economy in
19 Yukon as compared with tourists?

20 MR. MILLER: I don't think there's
21 any statistics available on that question. There are
22 statistics available on what tourists leave here but not on
23 what transients leave here because nobody identifies the
24 transients.

25 Q I see. Based on your
26 experience here, sir, would you agree that, in general, tour-

1 ists pay their own way, often in advance, whereas transients
2 may or may not be able to pay their own way.

3 A I haven't seen any
4 dramatic demand by transients in not being able to pay their
5 own way.

6 Q Well, you have in
7 your evidence, sir, the table where you list the numbers of
8 transients who had to get welfare when in the Yukon. Are
9 you familiar with that, sir?

10 A Yes.

11 Q Is it your experience
12 that you have to hand out welfare to tourists?

13 A I don't know the
14 difference between a transient and a tourist.

15 Q I see.

16 A And that those
17 statistics weren't kept that way. A transient caseload is
18 a transient caseload whether it's a tourist on his way home
19 and ran out of money or whether it's an individual who's
20 bummed his way up here and ran out of money. I know many
21 cases in the past where tourists heading home from Alaska
22 ran out of money and got money from the Welfare Department,
23 sufficient money to get to the next jurisdiction, and
24 that's been the pattern.

25 Q You wanted to add
26 something, Mr. MacLeod?

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MR. MacLEOD: Yes, I did.

Yesterday afternoon I gave some information on the Fort McMurray experience in this area and I said that during the summer peak period, some four hundred people were going into the Canada Manpower Centre applying for work. At the same time I saw the Welfare people in the town and they told me only about seven to eight, seven or eight transients per week came to them for help, and not all the seven or eight even received help. Those are very small percentage terms, seven or eight people a week times, maybe two thousand people go through the town every week, it's negligible.

Q Well, I suppose it's negligible or not depending on the capacity of the social service delivery systems to cope with that load.

A Well, not much trouble coping because these people come in the summer and the welfare policy there is fairly restrictive. If a person has no work lined up, nothing at all --

Q You're speaking at McMurray now?

A Yes.

Q I see.

A If a person has no work lined up at all, he is not given any assistance at all because it's felt that if he could thumb his way up he can thumb his way back.

1 Q I see. Are you know-
2 ledgeable about the situation that exists here?

3 A I've looked into it,
4 yes, and they have a pretty hard line here, too, as far as
5 I know.

6 Q You think the situa-
7 tion's generally the same as it is in McMurray?

8 A It seems quite similar,
9 yes.

10 Q Well, there are others
11 who will be giving evidence who are, I think, able to deal
12 with this subject and I'll leave it.

13 A Well, I know that
14 there are some welfare officers who are more lenient than
15 others, but I also think I said yesterday that if you offer
16 a hundred and, a hundred dollar vouchers to everybody who
17 comes to the door, you're going to have no trouble in showing
18 a line at the door.

19 THE CHAIRMAN: Mr. Marshall, I
20 wonder if you are moving from a different line of question-
21 ing then this might be a convenient time to take our mid-
22 morning break.

23 MR. MARSHALL: Fine, sir.

24 MR. GOUDGE:

25 Many members of the public would like to pose
26 questions to this panel, perhaps they could speak to me at

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1 PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT

2 MR. GOUDGE: Sir, I think we're
3 prepared to resume.

4 MR. CHAIRMAN: Mr. Hollingworth,
5 you had something to say?

6 MR. HOLLINGWORTH: Thank you, Mr.
7 Chairman, Members of the Board. When I was dealing with under-
8 takings at the beginning of the day, I neglected to go over to
9 another page to cover a couple of items. I'd just like to do
10 that now if I might.

11 On page 1317 of Volume 8, Mr.
12 Phelps addressed certain questions to Mr. Burrell related to
13 the cost overrun that would be expended by Foothills with a
14 one, two, or three year delay in start up and that, sir, is
15 handled in the Lemberg Study, which was filed as an Exhibit
16 this morning.

17 On pages 1318 and 1323 of Volume
18 8, we were asked to provide an exhaustive list of arguments
19 supporting our position that the Alaska analogy really is not
20 applicable to the Yukon situation. That will be dealt with
21 by Mr. Ellwood in his forthcoming evidence.

22 Those are the two points, thank
23 you.

24 MR. CHAIRMAN: Thank you, Mr.
25 Hollingworth.

26 Mr. Marshall?

1 MR. GOUDGE: Maybe just before Mr.
2 Marshall, perhaps Mr. Bayly has one small housekeeping item.

3 MR. CHAIRMAN: Mr. Bayly?

4 MR. BAYLY: Mr. Chairman, I have
5 the evidence of Mr. McCandless, one of the witnesses for the
6 Conservation Society, which I propose this morning and distri-
7 bute to those who wish copies and who are legal participants.

8 (EVIDENCE OF R. MCCANDLESS (YUKON CONSERVATION SOCIETY),
9 MARKED AS EXHIBIT 77)

10 MR. CHAIRMAN: Thank you, Mr.
11 Bayly. Mr. Marshall?

12 CROSS EXAMINATION BY MR. MARSHALL CONTINUED

13 MR. MARSHALL: Thank you, sir.
14 Mr. MacLeod, on page 15, in answer to question 19, you indi-
15 cate that in your opinion there is sufficient in the local
16 rental accommodation market in Whitehorse to accommodate 1,800
17 in-migrants. Have you got that?

18 MR. MACLEOD: Yes.

19 Q There was a comment made
20 on the record yesterday and I wasn't able to make an accurate
21 note, but it's my -- the note I have indicates that there were
22 about 600 lots that are vacant and there are something in the
23 order of 135 current vacancies in apartments and houses.

24 A Yes, the numbers I gave
25 were 136 vacant rental units and 691 lots under development.
26 Those lots aren't vacant, they're under development at various
stages.

1 Q Well, sir, my concern is
2 this. If we have a concern about the transient job seeker,
3 surely he's not in a position to be able to afford the offer-
4 ings of the local market. Wouldn't that be the case?

5 A A transient would not be
6 interested in buying a home, if that's what you mean.

7 Q He'd be interested in --

8 A Especially if he was
9 unemployed.

10 Q Right, he'd be interested
11 in some sort of hostel accommodation.

12 A Yes.

13 Q And in terms of whether
14 or not the community can accommodate people in that category,
15 one has to look at the likely available capacity in facilities
16 such as that.

17 A Yes.

18 Q And for others coming
19 into the community, they may want a place to live in now and
20 the fact that there is a vacant lot somewhere is of small com-
21 fort to them.

22 A Yes, but I never said in
23 my evidence that 1,800 people are going to show up at once.

24 Q What sort of a time frame
25 had you in mind when you stated that 1,800 in-migrants to
26 Whitehorse could be accommodated?

1 A That's in 1980, so, they
2 start coming in '79 and would build up to that in 1980.

3 Q And your opinion is then
4 that these 1,800 could be accommodated by 1980?

5 A Yes, but that's not a
6 demand for 1,800 units. Remember there are dependents.
7 Let's say there's three people to a home, that's three people
8 to a unit. That means that you have a requirement for about
9 600 units.

10 Q I thought your multiplier
11 was somewhat lower than that.

12 A Well, a little lower
13 might mean 700 units. I don't see much difference, because
14 the total of those lots under development, plus the vacancies,
15 comes to 827, which compares quite favourably to six or 700.

16 Q Really, this would re-
17 quire a tremendous surge in building in the city.

18 A Well, in Fort McMurray
19 right not, they're in the process of building 2,000 homes.

20 MR. MILLER: Mr. Marshall, if I
21 might add to that. We don't see any great surge in building
22 in the city and last -- for example, last year they built 374
23 units in this town. We're only talking about a need for some-
24 thing in the neighborhood of 400 in total.

25 MR. MARSHALL: Mr. MacLeod, what
26 assumptions have you made in your estimates as to the turn-

1 over in construction personnel?

2 MR. MACLEOD: I haven't given
3 any explicit consideration to that because I don't think it's
4 very pertinent, really.

5 Q Well, do you have in
6 mind any figure as to how many times during the year the
7 construction work force is likely to turn over?

8 A We'd expect it to be
9 quite low because the idea is that a person comes in at the
10 beginning of the construction season in a given year and stays
11 for the entire season and then leaves.

12 Q I was just wondering if
13 you had a -- if you were working on a figure or from a figure?

14 A No, because my -- all of
15 my calculations are based on the idea of replenishment. A
16 number of people around at any given time. So I do recognize
17 that there will be turn over, but I'm considering -- I'm look-
18 ing at the sustained level of people and when one person leaves
19 another one fills his place. There's still the same number of
20 people around and the net effect is zero.

21 Q Well, there is an effect,
22 of course, involved with the physical moving in and moving
23 out of the person.

24 A Well, a little more traf-
25 fic at the airport.

26 Q Well, perhaps just not

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1 at the airport. That person may be at a camp way up near the
2 Alaska border. He has to travel all the way back to Whitehorse
3 and then catch a plane here and be sent back South.

4 A Yes.

5 Q But you haven't taken
6 that into account in your figures?

7 A I don't think it's a very
8 large number.

9 Q Mr. Miller, do I under-
10 stand correctly that the methodology that you have employed
11 in your calculation is unchanged from that used in your prior
12 testimony?

13 MR. MILLER: That's correct.

14 Q There has been some dis-
15 cussion about 300,000 tourists a year to Yukon. It was men-
16 tioned yesterday. My information is that that figure repre-
17 sents not tourists, but visitors. Do you know if that's cor-
18 rect?

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1 A Yes, that's correct.

2 Q And what is done is
3 that every person who enters Yukon is counted as a visitor,
4 whether they --

5 A That's right.

6 Q -- are a resident of
7 Yukon, or whether they are a tourist or transient, or
8 someone like persons in this Inquiry who come in periodically?

9 A That would be correct.

10 Q And each and every time
11 a person comes into Yukon, they are counted as a visitor?

12 A That's right.

13 Q You have an item in your
14 evidence, sir, relating to highways. I would just like you
15 to check something if you would, sir, against the evidence
16 that was given by Mr. Gordon Walker, who is a witness for
17 Foothills in the National Energy Board proceedings. I'll
18 give you the transcript references and perhaps you could
19 check this and indicate whether or not you have taken into
20 account the increased number of vehicles which his evidence
21 indicates, maybe using the highway system.

22 At page 20190, and this is for
23 January 11th, 1977, Mr. Walker said that the Y.T.G. Department
24 of Highways were not worried about traffic volumes until
25 the density reached twenty to twenty-five per hour. Foothills
26 maximum density for supply of trucks is ten per hour.

1 MR. HOLLINGWORTH: Is this a direct
2 quote, Mr. Marshall, or are you para-phrasing this?

3 MR. MARSHALL: I'm para-phrasing
4 this. I'm asking him --

5 MR. HOLLINGWORTH: I prefer if you
6 would read it word for word, please?

7 MR. MARSHALL: Well, I don't have
8 the transcript with me. I'm just asking if he would check
9 and see if -- the confirm the accuracy of it and confirm
10 whether or not he's used these figures in the table that he's
11 included in his direct evidence.

12 I would be happy to get the
13 transcript and file it this afternoon, if it's all right with
14 you Mr. Hollingworth?

15 MR. HOLLINGWORTH: I certainly
16 have no objection.

17 MR. MARSHALL: Then on January
18 12th at page 20299, Mr. Walker indicated that major vehicles
19 only were counted in the ten per hour figure and that the
20 peak for total project traffic, including minor vehicles,
21 could reach seventy-five per hour as average figures for
22 peak operations periods on a spread for a couple of hours at
23 the beginning and end of each day.

24 Then further at page 20301, he
25 indicated that the ten vehicle per hour figure was discussed
26 with the Y.T.G., but the seventy-five per hour figure was not.

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1 Now, sir, what I am interested in is whether you have used
2 the ten per hour figure, or the seventy-five per hour figure,
3 or something in between.

4 If you could just check those
5 statements made by Mr. Walker and put a response on the
6 record, I would appreciate it.

7 MR. MILLER: I would be happy to
8 do so.

9 Q Thank you.

10 MR. MARSHALL: Those are all
11 my questions, sir.

12 MR. GOUDGE: Ms. McPherson
13 indicated yesterday, sir, that she would like to ask one
14 question again this morning.

15 CROSS-EXAMINATION BY MS. MCPHERSON:

16 MS. MCPHERSON: Thank you.

17 Mr. Miller, in examining your
18 second attempt at expenditures which might be incurred by
19 the Social Welfare Branch, I find you have once again mis-
20 represented and underestimated the social welfare needs,
21 and therefore I feel obliged to go through the exercise --

22 MR. HOLLINGWORTH: Excuse me,
23 excuse me, Ms. McPherson. I understood that you were going
24 to ask a question.

25 MS. MCPHERSON: This is a question,
26 sir, I'm coming to the point.

1 -- and therefore feel obliged to
2 go through the exercise of examining your figures as
3 presented.

4 In your last paragraph on page
5 six, I wonder if you can tell me how you have obtained the
6 case load figures of 174 to 179?

7 MR. MILLER: Yes, I took the
8 total case load handled by the Social Welfare Department,
9 and I divided it by the number of social workers.

10 Q I assume then that you
11 have used the information that's publicly available and
12 a chart perhaps referred to as 'case load activities'?

13 A That's correct.

14 Q By using the columns
15 entitled, "Total Case Load Carried during the Fiscal Year",
16 you do not obtain the average case load of a worker. Perhaps
17 if I can explain what the difference is here.

18 The column represents all the
19 cases carried during that year. Some for a short period
20 of time, others often open two or three times, as in the
21 social assistance cases. With this number there will be many
22 cases which have been closed, and many others to replace
23 those.

24 To obtain an accurate indicator
25 of an average case load of a worker at any given time, you
26 would have to take the columns entitled, "Cases as of April 1st"

1 "Actual Case Load as of March", the following year thereby
2 you would get the cases carried over from the year, actual
3 number, and then the cases actually at the end of that year.
4 Add the two, and then divide by your number of workers or,
5 you know, for whatever run of years you want.

6 That way you end up with --

7 MR. HOLLINGWORTH: Excuse me,
8 Ms. McPherson, it seems to me that isn't this an appropriate
9 statement for Ms. McPherson to make in evidence herself, sir?

10 MR. CHAIRMAN: I understand Ms.
11 McPherson to be asking Mr. Miller if he agrees with the
12 method of approach that she has --

13 MS. MCPHERSON: Yes, I am. Mr.
14 Commissioner, I'm sorry to go into so much detail, but this
15 is the third time that they have presented material on social
16 assistance, first in Volume 5A, secondly in Mr. Miller's
17 first attempt, and now again. It's been misrepresented and
18 all I'm doing is trying to clarify it and trying to see if
19 Mr. Miller would agree with the actual method of representing
20 it. That's all I'm trying to do.

21 MR. HOLLINGWORTH: I just don't
22 like statements about misrepresentation that are supposed to
23 be part of the question, sir. I would suggest to her that
24 if she could ask a question of Mr. Miller and see if he
25 agrees with her method of calculation, or not. Now if she
26 regards it as misrepresentation, let her say so in her

1 evidence, but I don't see why she should have an opportunity
2 to cross-examine a second time, just to cast dispersions
3 on Mr. Miller's methods with such verbs?

4 MS. MCPHERSON: Perhaps if you
5 would let me explain the difference in the methodology, and
6 then I will ask Mr. Miller if he agrees with the actual
7 way of doing it, then we'll see.

8 Is that agreeable?

9 MR. CHAIRMAN: I think with the
10 substance of your question, Ms. McPherson. Mr. Hollingworth
11 is suggesting that one or two or the terms you are using
12 might be perhaps --

13 MS. MCPHERSON: Fine, I can
14 substantiate them in evidence.

15 If you do this then, Mr. Miller,
16 using those two columns, as I have suggested, you get an
17 average case load of 78, which is a far cry from 179. Using
18 your figure of 179 you have then gone ahead and expected a
19 worker to cope with two and a half times more than he or
20 she handles at any one given time.

21 Using these figures to predict
22 increased staff is erroneous. Do you understand that point?

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1 MR MILLER: I understand what
2 you're getting at Ms. McPherson, but I also know that the
3 Department of Welfare has used my methodology for the last
4 six years to predict their staff requirement.

5 Q Mr. Miller, I sat
6 down last night with the Administrative Officer and the
7 Director and we went through these statistics. We looked
8 at how you predict increased staff and these are the points
9 that I'm raising to you.

10 A I might suggest Ms.
11 McPherson, you're dealing with a new Director and a new
12 Admin. Officer, but if you go back in approximately two
13 years ago, and go back to the program forecast, you'll find
14 the exact methodology that I've used -- which was used by
15 the department in 1971 to 1975 to predict their staff
16 requirement.

17 Q I'm not asking for
18 historical data Mr. Miller. I'm presenting to you, the
19 fact that the way you increase staff now, is not by using
20 the methodology you've predicted and by doing that, you
21 really are not indicating an accurate assessment of what
22 future needs would be. Would you agree with that?

23 A Well, I would agree
24 Ms. McPherson, that there are different ways of estimating
25 what your staff requirements are. I have no argument with
26 that at all. In fact, as you recall yesterday, I've

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1 suggested that one of the things I tried to get the depart-
2 ment to do for five to six years was to weight their cases
3 and they have not done that.

4 So, there are different methods
5 for estimating. You have chosen one, I have chosen another.
6 But as you recall in my first attempt to estimate what the
7 staff requirements were, I indicated very clearly that I did
8 not use caseload figures. That what I did, was look at the
9 areas in the Yukon where I thought there would be additional
10 need for social welfare work and I estimated three. I still
11 maintain that three is sufficient.

12 Q Fine. Based on Mr.
13 MacLeod's illustrations then Mr. Miller, and using your
14 eight per cent ratio of cases per population, which does
15 seem to be accurate in reviewing that, it is conceivable
16 then that at the peak of speculative in-migrants, that we
17 could be looking at dealing with eight per cent of forty-
18 five hundred maximum per month, which could be three hundred
19 and sixty new cases. That's for speculators only.

20 If we use a caseload figure
21 then of seventy, which is a reasonable figure for a case-
22 worker to carry, that would mean an additional five workers
23 plus clerical staff.

24 MR. HOLLINGWORTH: May I ask
25 the source of your forty-five hundred per month, Ms.
26 McPherson?

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1 MS. McPHERSON: It's the
2 rather lengthy illustration that we went through yesterday
3 with Mr. MacLeod.

4 MR. HOLLINGWORTH: Maybe Mr.
5 MacLeod has a few words.

6 MR. MacLEOD: I never conceded
7 that you could extrapolate -- that you could multiply the
8 four hundred people times every day of the month, every day
9 of the year.

10 Q I believe during the
11 peak period, you said it would be possible that we would
12 be dealing with forty-five hundred per month. I clearly
13 remember you saying that.

14 MR. MacLEOD: If a person is
15 only here for one day, as I assumed, he hasn't got much
16 time to become a welfare case. If he is, it's a very small
17 workload. You could process many cases like that, he's not
18 a long standing client who's going to be around for a year.

19 Q The person that --
20 Mr. MacLeod, perhaps I can put this to you -- the person
21 that comes into the welfare office, as perhaps even a small
22 percentage of that transient population, is not your
23 individual that is coping well, that is financially equipped,
24 the person is there with definite problems, he's there for
25 a reason.

26 That kind of person does not

1 come and go in one day. In order to even open one of those
2 cases, it takes a very lengthy length of time. Usually,
3 there's follow-up required, usually whatever problem that's
4 involved, takes far more than twenty-four hours. We'd be
5 delighted if we could get rid of our problems in twenty-
6 four hours.

7 A Are you assuming that
8 eight per cent of the forty-five hundred would become
9 welfare cases?

10 Q Mr. Miller has figured
11 that eight per cent of any given population are public
12 assistance cases -- now he's just dealt with public assist-
13 ance -- and I'm using that figure. I don't think we can
14 assume that pipeline speculators or any people for that
15 matter are free of the social problems that our population
16 is here.

17 A Yes, I agree with the
18 8 per cent to the general population increase, but I do
19 not include the speculators as part of the population in-
20 crease.

21 Q You think there is
22 something special about speculators that --

23 A If they only come
24 here for a couple of days, they're not residents.

25 Q Mr. MacLeod, I submit
26 to you, that the people that end up in our office as they

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1 do in the Fort McMurray office, social welfare departments
2 do not get rid of them.

3 A But they are not eight
4 per cent. They are not eight per cent of the total specu-
5 lators. I gave data on Fort McMurray --

6 Q So then you're not
7 agreeing with Mr. Miller's --

8 A I said on several
9 occasions that approximately four hundred speculators show
10 up in Fort McMurray every business day at the Manpower
11 Centre. That gives you two thousand a week and of that
12 two thousand, only about six or seven or eight show up at
13 the welfare office and not all become open cases. So your
14 percentage is much lower than eight per cent.

15 Q That's fine. I
16 wasn't giving you any figures on Fort McMurray. I am
17 asking you then if you agree or disagree with Mr. Miller's
18 eight per cent of --

19 A I agree that you can
20 apply that eight per cent to the total population, the
21 general population, but the in-migrant who only comes for a
22 couple of days is not part of the population. Therefore,
23 you cannot apply the eight per cent to that number of
24 people.

25 Now, I can agree that some
26 people will come in to your office and be difficult cases

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1 which require a lot of attention, but certainly not eight
2 per cent of the transients that pass through.

3 Q Can you tell me what
4 would make these people different than any other people
5 included in that population?

6 MR. MILLER: I think Ms.
7 McPherson, you're using the wrong numbers. If you want to
8 make the comparison, you would have to take the twenty odd
9 thousand people that we have in the Yukon and add the
10 three hundred and forty thousand tourists we get, divide
11 that in your caseload and use that percentage.

12 You can't use eight per cent
13 of the stable population and apply it to transient people,
14 what's being suggested.

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1 Q You really haven't
2 answered the question. I'm asking you what makes these
3 people any different than the people we are dealing with.

4 A Well, the people,
5 I'm sorry -- which people are you referring to, that you're
6 dealing with?

7 Q The public assistance
8 transient case load that we are already dealing with.

9 A Well, I suggest in
10 my evidence, Miss McPherson, that you've handled three
11 hundred and eighty-eight transient cases. That isn't eight
12 percent of the population.

13 Q Transient cases are
14 part of the public assistance caseload that I'm referring
15 to.

16 A I appreciate that but
17 if you want to take that figure and isolate it and divide it
18 by twenty-odd thousand, you'll get a completely different
19 percentage than eight percent.

20 Q If you take the public
21 assistance caseload and find a percentage of the Yukon pop-
22 ulation as you have done, it works out to be eight percent.

23 A That's correct.

24 Q Now, I am applying that
25 to an additional population increase for a peak period of
26 time and I'm using the same percentage.

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1 MR. MACLEOD: Well, I would suggest
2 you can't do it, Miss McPherson.

3 Q Okay. Let me finish
4 the illustration and then I shall answer

5 A Well, I think for
6 consistency you would have to add the three hundred thousand
7 tourists to your population of twenty thousand, then make
8 the division. Because you want to include the transients
9 during the construction phase whereas you do not want to
10 include the transients who are passing through right now in
11 the form of visitors.

12 Q The transients that
13 are passing through now are already included in the public
14 assistance caseload.

15 A But they're not in-
16 cluded in your population figure of twenty thousand.

17 MR. MILLER: You're dividing
18 apples by oranges. You won't get the right answer.

19 MR. MacLEOD: For consistency
20 you would have to take your population of the territory of
21 twenty thousand and add in the three hundred thousand
22 visitors which pass through, then relate the three hundred
23 or the total number of cases to that total.

24 Q Okay, let me finish
25 the illustration. I agree that we're obviously using
26 different examples and my point here is to illustrate some-

1 thing about costs and I would then ask you if you would
2 agree.

3 Okay, if hypothetically that
4 illustration could occur that we're looking at a peak of
5 forty-five hundred people per month, okay. Then if we're
6 looking at eight percent of that, which would be three
7 hundred and sixty new cases, if we're looking at a worker
8 being able to handle seventy cases, that would be an
9 additional five workers required, that would be an additional
10 clerical staff to assist them. That works out in costs to
11 a hundred and three thousand, five hundred dollars. Would
12 you agree that the costs attributable to five new workers
13 would be somewhere in that range?

14 MR. MILLER: Yeah, that's pretty
15 close.

16 Q Okay, thank you.

17 Mr. Miller, many people think
18 that the Social Welfare Department do nothing but offer
19 public assistance to clients. I wonder if you are aware
20 that public assistance represents a small portion of respon-
21 sibility of the social welfare department and certainly a
22 small, very small, percentage of the costs of the services,
23 and are you aware that other services are offered in the
24 areas of children and care, child protection, foster home
25 placements, family services, services to the elderly? In
26 fact, the expenditures in child welfare matters exceeded

1 public assistance expenditures during the last year, from
2 a total budget of two million eight hundred and thirty-one
3 thousand public assistance expenditures were six hundred and
4 twenty-three thousand. Child welfare expenditures were
5 seven hundred and ten thousand, approximately a hundred
6 thousand more, and services to the aged were six hundred and
7 two thousand.

8 My point here, Mr. Miller, is
9 that you have not counted anywhere for increased child wel-
10 fare costs, increased family service costs, foster home
11 expenditures and so on. All of the costs associated with
12 increased family and marital breakdown, and I give an example
13 to you that in some instances child treatment facilities
14 cost up to eighty-five dollars a day plus transportation
15 costs. An annual figure for that would be thirty-one
16 thousand dollars. Do you see the point that I'm getting at,
17 that nowhere in your expenditures have you allocated anything
18 else other than public assistance?

19 A Well, Miss McPherson,
20 I'm well aware of what the social welfare department does.
21 I worked with the people in the department off and on for
22 the last seven years, I know the costs that you have illust-
23 rated --

24 Q Can I ask you then why
25 you have not reflected any of the other costs in your ex-
26 penditures because --

1 MR. HOLLINGWORTH: Miss McPherson, may he
2 finish answeing your rather lengthy question before you go
3 on to another one, please?

4 MR. MILLER: Miss McPherson, I
5 think as I indicated at the first panel, I have no way of
6 predicting, nor do you have any way of predicting, how many
7 family breakdowns will develop as a result of a pipeline.
8 All I have done is taken caseloads, which is the information
9 that the department has publicly issued as explaining, in-
10 cluding in public documents, the role of the social welfare
11 department, and I have extrapolated those statistics dealing
12 with population and I think it's, you know -- if anybody
13 can estimate, you as a social worker can sit and estimate
14 how many family breakdowns we'll have, I can't, I'm not a
15 social worker, I can only use statistics.

16 Q Do you not feel that
17 this will be part of the incremental cost?

18 A There is a possibility
19 and again I recognize that there may be family breakdowns,
20 additonal child welfare cases that develop, I can't argue
21 that point with you.

22 Q I wonder, then, if
23 perhaps Mr. Burrell could tell me why these costs have not
24 been, an attempt has not been made to figure those costs
25 and attribute them to the Yukon Territorial Government as
26 I understand the attempt of your financial forecast was.

1 MR. MILLER: Yes, I attempt
2 to illustrate the incremental cost which might be incurred
3 by the Government of the Yukon Territory in, as a direct
4 result of a pipeline project. I still haven't seen any
5 evidence from anybody, including the government departments
6 and I have talked to numerous people in government depart-
7 ments, that my estimates were inaccurate.

8 Q That's not the
9 question I asked, sir. I wonder, perhaps, Mr. Burrell,
10 could you answer that?

11 MR. MacLEOD: I'd like to
12 add something there. The major component, the largest com-
13 ponent of this population increase that you foresee is in
14 the form of speculators in the forty-five hundred a month
15 that you are using. Well, I've said in my evidence that I
16 expect this group to have very few children, very few
17 dependents, so if you have very few dependents, a lot less
18 than the Territorial average, you're going to have propor-
19 tionately less child-related problems, less demand for
20 foster homes.

21 Q Are you aware of the
22 effect on the social service delivery in Alaska?

A Yes.

23 Q Would you tell me
24 proportionately the effect on the public assistance caseload
25 end on the child welfare matters?

26 A It's gone down, total

1 expenditures went down but it's hard to compare because they
2 changed the programs at the time, transferred people out of one
3 program into another.

4 Q Public assistance has
5 gone down, is that right?

6 A In various programs.
7 I have the material here if you're interested.

8 Q And could you tell me
9 child welfare matters, family service matters?

10 A Well, what I'm trying
11 to say is that the speculators are not bringing children
12 with them, so you can't have child-related problems coming
13 from that group.

14 Q Could you answer my
15 question, sir, about Alaska social services and family
16 service matters?

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1 A That's in the Fairbanks
2 Impact Centre Report.

3 MR. MILLER: Ms McPherson, I won-
4 der just deal briefly with a comment you made. You've indica-
5 ted that I didn't include any of these costs. I submit to you
6 that I didn't deal with these matters individually, but if there
7 is any relationship between what has happened in the past and
8 what will happen in the future, that I have included these
9 costs in my sum.

10 MS MCPHERSON: Could you explain
11 that in more detail? How could you have included them if they
12 weren't tabulated individually?

13 MR. MILLER: Well, if you take
14 the averages from the past and project that into the future,
15 you're obviously including in the future costs what has hap-
16 pened in the past, in relation to what has happened in the
17 past.

18 Q Has there been an impact
19 on services to people as great as the potential impacts of
20 this pipeline before?

21 A Probably not in the to-
22 tal analysis, but in certain areas there certainly has been,
23 yes.

24 Q Could you give me an
25 example of that?

26 A In terms of...?

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1 Q The impact on social
2 service delivery.

3 A Well, it seems to me and
4 just going by memory here, that we talked about Cypress Anvil
5 impacting on the Faro, or on Ross River. There's been all
6 sorts of studies done on that, and yet there was no impact on
7 government social services of any significance until we sent
8 a social worker in.

9 Q Until we sent a social
10 worker.

11 A That's right.

12 Q How do you expect to
13 monitor social problems if there's no one there to monitor
14 them?

15 A Well, I submit to you
16 that Ross River survived without a social worker until about
17 1973, or 1974.

18 Q That's not to say,
19 though, that the problems did not exist?

20 A That's not to say that
21 there wasn't social problems and that's not to say that there
22 wasn't a need for one. I'm just saying that they managed to
23 get along without one.

24 Q Yes. Mr. MacLeod, have
25 you found that information?

26 MR. MACLEOD: Yes, I have.

1 This information is contained in
2 the Fairbanks Impact Information Centre Report Number 32,
3 dated December 15, 1976. I'll read some relevant sections
4 here:

5 "It was predicted that the population increase which
6 would occur in the construction of the pipeline would
7 cause a corresponding increase in the welfare roles
8 in impacted communities. Some programs, particularly
9 those associated with emergency housing, such as the
10 Rescue Mission and Salvation Army, experienced heavy
11 demands for their services. However, the number of
12 state public assistance and food stamp cases de-
13 clined markedly.

14 The information shows that the number of categorical
15 assistance cases in Fairbanks dropped from 698, in
16 1972, to 188 in October, '76, a decline of 44 per
17 cent. Most of that decrease was concentrated in the
18 1974 - 76 pipeline period, when the caseload dropped
19 30 per cent."

20 I can go on for a couple more
21 pages.

22 Q Yes, I'm well aware of
23 that material as I've done a complete review of it. That's
24 public assistance only. That's not child welfare matters,
25 that's not family services. I believe you'll find
26 that in another section and I can perhaps give you that refer-

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CROSS-EXAMINATION BY MR. GOUDGE:

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1 assumes that the cost of gas to the end user in each of the communi-
2 ties would be the same, right.

3 Q And that means that the
4 cost to the end user is spread over the Yukon as a whole, rath-
5 er than simply spread over each community by community?

6 A The communities are
7 lumped, yes.

8 Q And that would mean a
9 single distribution system as opposed to individual community
10 distribution systems?

11 A Under this arrangement,
12 yes.

13 Q And I take it in the
14 arrangement, in your evidence, effectively, ^{/Whitehorse} because of its
15 larger consumption, lowers the cost of gas to the outlying
16 communities?

17 A I believe that's cor-
18 rect, I'll have a look here.

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1 As a matter of fact if you look
2 at it as a single pricing system, as opposed to an
3 individual community pricing system, you will find that in
4 fact that under the single pricing system, there is some
5 additional saving to Whitehorse. So, it's on the other
6 communities where you see a slight decrease.

7 Q Now I understand that.
8 Are you telling me that with a single unit price system,
9 there are savings to all communities?

10 A No, under the single
11 pricing system, some of the communities recognize a
12 greater saving than they would under the individual
13 community pricing system and in some cases there are
14 communities that have a lesser saving.

15 Q Which communities have
16 a lesser saving under the single system?

17 A According to the numbers
18 that I have here, Beaver Creek, Destruction Bay, Teslin and
19 Watson Lake, recognize a smaller saving under the single
20 pricing system. Whitehorse and Haines Junction recognize
21 a larger saving under the single pricing system.

22 Q It would be helpful,
23 Mr. Burrell, if you could perhaps extract those figures, put
24 them on a sheet of paper and table them with us. They may
25 be in your application in fact.

26 A We can do that, yes.

1 Q Thank you. In terms of
2 the conversion cost, another aspect of the evidence that you
3 were asked to discuss in cross-examination, am I right that
4 the figure you gave for converting a furnace from oil to
5 gas is, in your estimation, in the neighbourhood of five to
6 six hundred dollars?

7 A Yes, I believe that's
8 correct.

9 Q Yes. I wonder if you
10 are familiar with the Canadian Arctic Gas study done in 1974
11 entitled, "Impact of Proposed Arctic Gas Pipeline on Energy
12 Costs in Northern Communities"? In that study they gave an
13 estimate that for a modern oil fuel heating system in a
14 twelve hundred square foot house, conversion from fuel oil
15 to gas would cost, speaking of the furnace alone, roughly
16 \$790.00 in 1979 figures.

17 A In '79 dollars?

18 Q Yes.

19 A The numbers that were
20 given to us were given by a Company that's in the business
21 of putting gas into communities and in fact converting it.
22 So, I relied upon the numbers that they gave me. I don't
23 know how Arctic Gas got their numbers.

24 Q And your numbers, I take
25 it, are in '76 or '77 dollars?

26 A We've calculated them in

1 1975 in 1980 dollars. The number that we have here for
2 conversion -- for converting an existing oil furnace is
3 in 1980 dollars, we had a number of \$675.00 and I rounded
4 those off and gave it a bit of a range when I was presenting
5 evidence earlier, but that's the number we have based on the
6 information we've gotten from people who are actually in
7 the business of doing this.

8 Q And that's simply the
9 furnace I take it. Not any additional work such as duct
10 work or chimney work that may be necessary as a result of
11 the conversion?

12 A It's been some time since
13 these numbers were done, but it was my understanding at
14 that time, that this was in fact the requirement -- the cost
15 requirement for converting from oil to gas.

16 Q In it's entirety?

17 A That's what my under-
18 standing was at the time that these were developed.

19 Q The reason I ask is that
20 the same Arctic Gas Study I referred to cites as a second
21 example, the conversion involving duct work and chimney work
22 as well as furnace conversion, and their end figure is
23 \$1,500.00 in 1979 dollars.

24 I take it you have no comment on
25 their figures?

26 A I don't know how they

1 got them really.

2 Q Now, in terms of
3 comparisons, the evidence you give shows the comparison
4 between fuel oil and gas. There is no showing of a
5 comparison between gas and hydro-electric base heating. Is
6 that correct?

7 A There was, in our filing,
8 the socio-economic statement, in the original filing, there
9 was a comparison shown. The saving was fairly significant
10 and we felt it wasn't worthwhile to show that comparison on
11 these sheets.

12 Q Yes. And consistent
13 with that, I take it, is your assumption in your evidence
14 that there will be no converting from electric heating to
15 gas heating?

16 A Yes, the people that
17 did this work for us, who are in the business, have
18 concluded that conversion from electrical to gas would not
19 likely occur.

20 Q And that is based on
21 the relative lack of economic advantage to make that
22 conversion?

23 A In the case of Whitehorse,
24 that probably would be true. I think in -- I think just
25 the difficulty of converting, their experience has been, in
26 their market areas, that people once they put in the electrical

1 system, they tend not to convert to natural gas.

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1 Q Isn't it true that
2 your figures in the broad sense, disclose a shrinking
3 advantage over time for gas by comparison with electricity?
4 Mr. Miller is nodding his head. Is that affirmative Mr.
5 Miller?

6 MR. MILLER: That's basically
7 correct.

8 Q And I take it that's
9 based on existing hydroelectric generation facilities in
10 Yukon, is that so?

11 MR. BURRELL: The numbers are
12 based on a forecasted cost of electricity over the years.
13 In the case -- Mr. Miller is right -- in the case of
14 Whitehorse, there is a slight decrease in saving from the
15 fifth operating year to the tenth. I think in other
16 communities where there isn't much in the way of electrical
17 heating in any case, there is shown an increase in saving
18 over those two years.

19 But in Whitehorse where the
20 electrical load is -- where there's more electrical load
21 for heating, what Mr. Miller said, is correct according to
22 the tables that I have here.

23 Q Yes, and if you
24 built into your calculations, the assumption of a dramatic
25 decline in electric rates due to the coming on-stream of
26 major electric generation facilities in the territory, I

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1 take it the differential would reduce even more rapidly
2 and perhaps run ultimately in favour of electricity, is
3 that correct?

4 A Yes it could. I
5 think you'd have to know what the price of that electricity
6 is going to be and what the size of the development would
7 be and so on.

8 These have been based upon the
9 best estimates we can make at this particular time. As I
10 said earlier, we will have to, at the time the pipeline
11 does go forward, it will be necessary to do a detailed
12 study just to confirm these numbers and also to get some
13 final design costs involved, but that would be necessary in
14 any case. This would be a factor to take into consideration
15 at that time.

16 Q But it is true,
17 isn't it, that if major hydroelectric development takes
18 place in the territory, hydroelectric rates are going to
19 drop dramatically for residential and commercial consumers?

20 A Certainly in the
21 smaller communities, if they're provided with hydro
22 facilities, certainly yes.

23 Q And isn't it true
24 that it's likely in that event, that electricity would be
25 preferential price wise to gas as a heating source?

26 A I can't comment on

1 that because you'd have to know what the price of the
2 electricity is going to be.

3 Q You'd acknowledge
4 that that possibility exists?

5 A Oh, certainly, yes.

6 Q Now, in terms of
7 your pricing comparison, the table at the end of your
8 evidence In Chief, you recite in column three, the natural
9 gas prices that you estimate in 1986 and 1991.

10 Do those -- well, let me begin
11 this way. You're more familiar with it than I am, but I
12 take it that gas pricing in Canada now, in a general sense,
13 is based on the presumption that gas will be marketed at
14 approximately eight-five per cent the price of fuel oil,
15 taking a heating equivalent value?

16 A I believe the inten-
17 tion is totake it to commodity value pricing at the early
18 '80's.. That's what my understanding is. There may be for
19 some reasons, a decision not to take it to that point,
20 but as far as I know, that's the current intention.

21 Q Yes. My next
22 question is whether your assumptions about gas pricing have
23 built in this evolution of the movement of gas prices to
24 all local prices.

25 A Yes they have.

26 Q You say in your

1 evidence that in terms of price to the town gate here in
2 Yukon, if I can put it that way, the Alberta border price
3 is your estimated price?

4 A Yes.

5 Q Now, I take it
6 there is no reason why you couldn't base your pricing
7 assumptions on a somewhat lesser price than the Alberta
8 border price?

9 A Well, under the
10 present arrangement, as I understand it in discussions with
11 people in the business, that that is the price that's been
12 established for sales of gas outside of Alberta and that
13 was the appropriate price to use.

14 Q Yes and when you
15 say established, established by whom?

16 A Government, between
17 Alberta Government and the Federal Government.

18 Q I see. So it would
19 take an alteration in that agreement for gas to be sold here
20 in Yukon at a price less than the Alberta border price?

21 A I would say yes. The
22 Alberta border price though is, as I said before, is the
23 price that applies to the sale of gas in all areas outside
24 of Alberta, so the Yukon would be realizing a price -- the
25 Alberta border price, the same as the people in Ontario
26 would be recognizing the Alberta border price.

1 Q In terms of the gas
2 being supplied here, you've described in some detail the
3 swap arrangement that you propose.

4 A Yes.

5 A And I take it that's
6 an arrangement that you would foresee lasting over the life
7 of the project?

8 A Yes.

9 Q I take it then that
10 should the Dempster Lateral be built you would foresee gas
11 being burned here to come from that swap arrangement rather
12 than from Delta Gas, from MacKenzie Delta Gas?

13 A I guess that's a dif-
14 ficult question to answer, it's, it is possible that arrange-
15 ments could be made to obtain the gas from the Delta. I see
16 no reason why that the supply of Delta gas could not be made
17 available equally to Yukon, the same opportunity to Yukon as
18 say, available to Ontario.

19 Q You've made no enquir-
20 ies as a company into that kind of arrangement, I take it?

21 A Not really, now not.
22 We're looking -- we think that that gas is probably going to
23 come on somewhere in the mid-eighties or later on so this
24 arrangement here is applicable to the timing of our project.

25 Q Now the regulatory
26 hurdles that you say have to be jumped before gas can be

1 delivered here in Yukon apart from hurdles presented to
2 your main project are referred to at Page 10 of your evidence.
3 You refer there to an export permit that Pan-Alberta present-
4 ly has that would permit the gas swap arrangement you suggest.

5 A Yes, that's an export
6 permit out of Alberta.

7 Q Does that mean that
8 there are no other regulatory processes that would have to
9 be gone through before the swap arrangement could be effect-
10 ed, once your line is in place, once your main line is in
11 place?

12 A I think the Energy
13 Board and the F.P.C. certainly would have to concur with the
14 arrangement but as we said before, we have made them aware
15 of the situation and it is part of the application that we
16 have made and we don't see any difficulty. The thing is
17 that an equal quantity of gas is going to go to the U.S.
18 under this arrangement, from what they put into Yukon in any
19 case so the U.S. is not being short-changed, if you wish,
20 on the quantity of gas that would be given to them.

21 Q So two applications
22 will be required, at least, one to the Energy Board and one
23 to the Federal Power Commission?

24 A It's included, as far
25 as I'm concerned, as I interpret it it has already been in-
26 cluded in our application to the National Energy Board, the

4 Granted the rolling in of the
5 laterals have not been included but we feel that it's a
6 fairly small item and it's a matter that can be handled
7 very nicely in discussions.

8 Q Well, let me put it
9 the other way around. Do you anticipate having to make any
10 additional applications to any regulatory bodies to facili-
11 tate this swap arrangement?

12 A I wouldn't expect so.

13 Q The Alberta Boards are
14 covered by the existing permits of Pan-Alberta, the two
15 national regulatory bodies are covered by your existing
16 main line application?

17 A As far as I'm concern-
18 ed, they are. There may be some refinement needed but as I
19 see it, we have included that as part of our applications
20 and there may be some minor technicalities but I don't see
21 any difficulty with it, really.

22 MR. GOUDGE: Sir, it's 12:30.

23 I wonder if you'd like to break for lunch?

24 THE CHAIRMAN: Right, we'll
25 adjourn until two o'clock.

26 (PROCEEDINGS ADJOURNED)

1 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

2 THE CHAIRMAN: Ladies and
3 gentlemen, I wonder if we might recommence now. Mr. Goudge?

4 MR. GOUDGE: Yes, sir.

5 Several more questions, if I may,
6 Mr. Burrell. You and I were discussing gas supply this
7 morning, one or two more questions about that, please.

8 One of the parts of your plan
9 for gas supply to local communities here is the supply to
10 local residences and local commercial establishments, is
11 that correct?

12 A Yes.

13 Q And, as well, you in-
14 clude within that the supply to local thermal generation
15 plants, permitting their conversion to gas from oil, is that
16 right?

17 A Yes, as that portion
18 applies to the supply of power, electrical power, to resi-
19 dents and commercial customers, right.

20 Q So that you would
21 anticipate thermal power production units in the communities
22 to switch from fuel oil, as a fuel source, to gas as a fuel
23 source?

24 A We think there would
25 be incentive to switch. Of course, the decisions whether
26 they would or not is theirs but we would think that there'd

1 be incentive to switch.

2 Q Yes, and that incentive
3 you would think is substantial enough to shoulder what will
4 be substantial conversion costs?

5 A We would think so, yes.

6 Q And I take it one of
7 the results of that is that there could be an anticipated
8 corresponding drop in electric rates in those communities,
9 because of the cost drop in the production of that electric-
10 ity?

11 A That possibility, yes,
12 exists.

13 Q And so I suppose in
14 some sense that is a discouragement to individuals in those
15 communities to switch from electricity, if they're now using
16 it as a heat source, to gas as a heat source?

17 A Really, I think the
18 areas we're looking at are in the smaller communities
19 where they have thermal generation primarily. The incent-
20 ive would still be there to convert to natural gas because
21 the resulting saving in electricity, as I see it, would not
22 be sufficient to overcome the saving which you could expect
23 by switching from fuel oil to natural gas.

24 Q I take it, though,
25 you don't know how many of homes in these communities are
26 heated by electricity, as opposed to simply serviced by

1 electricity?

2 A I may have that in-
3 formation. There's a number in Whitehorse. I believe in
4 the smaller communities it's relatively few.

5 Q Perhaps you could
6 supply that figure rather than bidding it out now, if you
7 have it.

8 Now, in addition, you make
9 reference in your evidence to the provision possibly on a
10 case by case basis of gas to industrial use, is that so?

11 A Yes.

12 Q And I understood you
13 to say yesterday, and I simply want to be clear about that,
14 that there will be provision of gas to industries here in
15 Yukon provided the user, that is, the industry requesting
16 it, finds it to be an economic fuel source?

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9 Certainly, there's a surplus
10 of gas available now in Alberta and we would think you could
11 acquire that supply, but certainly it's outside of what
12 we're proposing.

13 Q I see, so that the
14 plan that you propose at present, has a quantity ceiling on
15 it because of the swap arrangement?

16 A It has an estimate.
17 It's been established for residential and commercial
18 purposes and the gas supply would be obtained accordingly,
19 but it wasn't our intent to include in arranging for that
20 gas supply, through our plan, the quantity of gas necessary
21 for the industrial customer.

22 Q Yes, and that kind
23 of quantity of gas is as a general matter, substantially
24 greater than that used for commercial and industrial --
25 for commercial and residential purposes?

26 A Yes it could be. I

1 guess it depends upon how many industrial customers are
2 involved, but certainly, the loads that are used by indus-
3 trial customers are normally considerably higher than what
4 a commercial establishment would use.

5 Q Well, is it fair then
6 to say that it would involve a substantial expansion of your
7 proposed plan to take in industrial users?

8 A I guess that's
9 difficult to say. We hadn't intended to include the
10 industrial. As a gas supply, I guess, is the thing would
11 have to be looked at and then where the mine is and if it
12 is a mine industrial load and just how far the lateral
13 would have to run. As I said before, the intent of our
14 plan is to cover the residential and commercial customers.

15 Q And you've taken I
16 take it, no exploratory steps with Pan Alberta to discuss
17 how far beyond the present plan, this swap arrangement
18 could be taken in terms of gas quantities?

19 A No, we've discussed
20 with them on the basis of the estimates that we have for
21 gas requirements as done by our consultants.

22 Q Yes and so there is
23 no way of saying at this point, whether indeed, whatever
24 the economics, gas would be available for industrial
25 users here in Yukon?

26 A Certainly a supply

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1 would have to be obtained, but I would think that if a
2 supply was required, that Yukon industrial customers would
3 have the same opportunity of acquiring surplus gas supplies
4 as any other customer would have in Canada.

5 Q With the exception
6 that here it requires getting over the economic hurdle, but
7 as well, getting over the limited quantity hurdle in your
8 swap arrangement?
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1 A The economies in gas
2 supply situation applies to any customer really. It's --
3 you have to look at the economics and you have to certainly
4 have a gas supply. Even in Calgary you have to be assured
5 that say an industrial customer, has to be assured that (a)
6 it's economic to put the gas in, and (b) that he can make
7 some arrangement with the local utility to get the volume
8 that he requires. So, it's really just not an unusual
9 thing. It's just part of the normal investigation into
10 utilization of gas.

11 Q Does the same kind of
12 constraint of quantity apply to projected expansions in
13 your residential and commercial use? That is that you
14 would have to go back to Pan Alberta and attempt to
15 negotiate greater quantities from them?

16 A We have given them an
17 estimate of the quantity of gas that we anticipate would
18 be required. In excess of that, we would have to go and
19 talk to them about additional gas supply like any customer
20 would really.

21 Q The permit that they are
22 now using, Pan Alberta is now using, as an umbrella for this
23 swap arrangement is a permit of some length, I take it?

24 A It is, but it's -- my
25 information is that it has an expiry date in 1989. I
26 understand from discussions with people in Pan Alberta that

1 they will be making an application this summer and they will
2 be including in that, additional requirements for Yukon
3 beyond the 1989 period.

4 Q But only on the basis
5 of your residential commercial projections?

6 A Yes, we would have to
7 give them an estimate of the volume of gas we require,
8 but, like you say, that's the normal process.

9 Q Yes. You're not
10 including in your estimates your giving to them, potential
11 industrial users.

12 A No.

13 Q Now, in the communities
14 that you propose to service, you have listed in your
15 evidence in chief those along the highway, including
16 Burwash and Upper Liard on page seven. Is that correct?

17 A Yes.

18 Q Those are listed, I
19 take it, despite the fact that you would not anticipate
20 any distribution systems in those communities for the
21 reasons you discussed with Mr. Joe yesterday. Is that
22 right?

23 A Well, I think you have
24 to -- I think we agree that this point in time, perhaps
25 conversion to natural gas from wood in those two communities
26 would not occur. But we're talking about 1981 and perhaps

1 situations could change at that time. We have included
2 them, whether the people elect to take gas or not
3 is really their -- would really be their decision. But the
4 opportunity is there if it turns out that that's the proper
5 thing to do in their mind.

6 Q There will not be a
7 lateral to either of those communities built, I take it?

8 A Only if there's to be
9 gas distributed within the community.

10 Q Yes. However, in a
11 place like Teslin there will be a lateral?

12 A The intent of the
13 program is that there would be a lateral. Here again, you
14 have to look at it in the way in which it's normally done
15 and that is the offer is available. You would then go into
16 the community and do a detailed study determining how
17 many people actually want the gas and so on, and then
18 determine -- you know, if nobody in the community wanted
19 the gas, of course, you wouldn't build a lateral, it's as
20 simple as that.

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1 Q In a community like
2 Teslin, I take it the availability of the distribution system
3 might entice some people to switch from wood burning to gas?

4 A The possibility exists,
5 yes.

6 Q Has any consideration
7 been given, apart from the economics of that kind of switch,
8 to whether there's any social impact from that kind of
9 switch?

10 A No, we've looked at it
11 strictly from the economic standpoint at this time.

12 Q Isn't it an area that
13 might deserve some study, given the assumption that if there
14 is a switch, it represents not just an economic switch but a
15 switch from some form of traditional activity to a rather
16 more Southern energy source?

17 A Well, you have to look
18 at all the factors, I suppose, but really, as we were saying
19 before, the decision as to whether gas is taken is really a
20 decision by the individual themselves. We're making the
21 opportunity available and the individual himself has to make
22 that decision.

23 Q In terms of the cost
24 of these laterals, you told Mr. Marshall this morning that
25 it was 2.3 million dollars and you searched for that little
26 figure and I think you found it. Have you lost it again?

1 A The little figure?

2 Oh yeah, I found it. The effect on the main line costs of,
3 or the costs of transportation on the main line if these
4 laterals are in fact rolled in?

5 Q Yes.

6 A The number that I
7 recalled is the number that I found so -- the number that I've
8 calculated is that it's .0005 dollars per M.C.F., which is
9 pretty small.

10 Q That's half a cent per
11 M.C.F.?

12 A No, it's less than
13 that, it's .000, three zeros, five, so it's .05 cents, eh?

14 Q A twentieth of a cent?

15 A Yeah, something like
16 that.

17 Q Now, that's for how
18 many miles of lateral, approximately? Just roughly speak-
19 ing, are we talking fifty miles of lateral putting the,
20 putting the six communities together?

21 A We're probably talking
22 somewhere in the neighbourhood of thirty-five miles.

23 Q Thirty-five miles?

24 A It's all very small
25 diameter pipes.

26 Q Yeah. And I take it

1 from what you said to Mr. Marshall that you're putting this
2 before the American regulatory authorities for approval?

3 A What I said was that
4 the concept of supplying natural gas to, under this arrange-
5 ment has been discussed in our submissions to both the
6 National Energy Board and the F.P.C. and that we have worked
7 an arrangement with Pan-Alberta. I also mentioned, or I be-
8 lieve I mentioned, that the costs of these laterals had not
9 been included in the filing but it was our opinion that it
10 was such a small consideration that there would be no diffi-
11 culty in acquiring that.

12 Q I take it that means
13 that if there is no permission given to the passing along
14 of this cost, that the company would bear the cost?

15 A It's a pretty small
16 amount. I think you have to realize that in delivering the
17 gas in the Yukon, that gas does not have to be carried from
18 Yukon down to the Alberta-Saskatchewan border, which is the
19 place we would perhaps deem that the gas be delivered into
20 the main line, so that there is a reduction in the trans-
21 portation cost from the fact that you have reduced the
22 volume of gas being carried between the Yukon and Alberta,
23 so we would think that the price of the saving in trans-
24 portation costs would more or less offset the additional
25 costs of providing these laterals.

26 Q Yes, and I take it if

1 you were not permitted to pass that cost along, you would absorb it?

2 A That we would absorb
3 it?

4 Q Yeah.

5 A It's part of our
6 proposal, sir, to include these laterals in our projects so
7 we expect that that could be, that would be included in our
8 project.

9 Q And that's a yes, I
10 take it?

11 A Yes, it will be in-
12 cluded in the project.

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Miller, Ellwood
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1 Q Now, in terms of other
2 laterals, have you given any thought to the building of a
3 lateral from the Alaska Highway route itself to Dawson?

4 A We haven't done any studies
5 on it. Certainly the distance and the volumes you're looking
6 at make it uneconomical.

7 Q Can I do this kind of
8 simple mathematics and come up with a figure? If it's ten
9 times the length of the laterals you're proposing for the
10 Highway communities -- that is, 350 miles, would it add half
11 a cent as opposed to a twentieth of a cent?

12 A If it was ten times, you
13 say? Ten times the length, is that what you said?

14 Q I'm just assuming the
15 length from Whitehorse to Dawson to be about 350, for rough
16 purposes.

17 A It would be probably a
18 little more than that because you'd need a larger diameter
19 pipe because of the pressure drop, but, I haven't done any
20 work on that, but I would expect that.

21 Q Rough order of magnitude,
22 it would add half a cent per MCF ?

23 A I'd say a little more than
24 that, perhaps.

25 Q Yes.

26 A Not much more.

Miller, Ellwood
Burrell, MacLeod
CrEx by Goudge

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1 Q So I take it you're still
2 not talking about straight dollars being added to the price
3 of gas?

4 A Well, I guess everything adds
5 to the price of gas. We think that it's reasonable that the
6 communities along the Highway would receive gas. It's then
7 a matter of just how far you'd go. We feel that it's appro-
8 priate the highways along the -- or the communities along
9 the Highway get this, the opportunity, but, extending it
10 350 miles to service small load is probably going a little
11 too far.

12 Q I see, so that the infinitesi-
13 mal figure you found this morning multiplied by ten is too
14 big a figure.

15 MR. GIBBS: Well, Mr. Commissioner,
16 there's also a question that is pretty significant and my
17 friend knows that the capital cost, how much more money
18 you've got to borrow to build this 350 miles. It's not only
19 as my friend knows, just the infinitesimal cent per MCF.

20 MR. GOUDGE: I take it the answer to
21 my question is yes.

22 MR. BURRELL: Would you repeat the question,
23 please?

24 Q That the infinitesimal number
25 you found this morning, multiplied by ten becomes a number
26 beyond the line that you're prepared to go to.

Miller, Ellwood,
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1 A Well, I think that you have
2 to have a reasonable point of cut-off and as we said in our
3 evidence, I can't remember the precentage, but, this particu-
4 lar program does, in fact, provide gas to the great majority
5 of the people that live in the, in Yukon, and we feel that
6 it's a reasonable cut-off that we've established.

7 Q Now, in terms of other alter-
8 natives, let me ask this. I take it if you were proposing
9 a line down the Tintina Trench?

10 A Yes.

11 Q And if you start with that
12 assumption, the question of laterals has to be approached a
13 little differently. For example, a lateral to Whitehorse
14 might well be economic, because of the volume you would be
15 selling at the end of the lateral.

16 A You'd have to look at each
17 community individually and determine the, determine whether
18 in fact it was feasibly to install a lateral to those com-
19 munities.

20 Q And if I suggested to you the
21 lateral from a Tintina Trench route to Whitehorse, would be
22 economic, would you agree or disagree?

23 A I think probably it wouldn't
24 be and that's because of the competition with electric ener-
25 gy, probably.

26 Q I see. To switch to the

Miller, Ellwood
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1 Mackenzie Valley, there I take it you were proposing a la-
2 teral from your main line to Yellowknife?

3 A Yes.

4 Q And the distance of that
5 lateral was something over 400 miles?

6 A Correct.

7 Q And the size of the community
8 slightly less than the size of Whitehorse? Mr. MacLeod,
9 who knows the area, is nodding his head.

10 A I'm sorry, I was listening to
11 Mr. Ellwood here.

12 Q You turned the wrong way.

13 A Yes, we did include it and
14 we compared those costs to go with the cost of fuel oil. I'm
15 saying that I didn't think that the natural gas could be
16 delivered into Whitehorse compared with hydro and I think
17 we're talking about some different comparisons here.

18 Q I see. So the Yellowknife
19 lateral, you say, is economic because you were displacing
20 fuel oil.

21 A We thought it was appropriate
22 to -- we thought it was appropriate to include that, those
23 laterals in our filing because of the -- there was a large
24 population area of Hay River and Pine Point and Rae-Edzo and
25 Providence and Yellowknife and that by making the gas avail-
26 able it would in fact reduce the cost of energy to these

1 people and that's really the object of our policy and that's
2 to reduce the costs of energy to the residential and commer-
3 cial people. Now, I think in the case of Whitehorse, you
4 have a little, you have a different margin that the hydro
5 costs are much closer to what the cost of gas would be.

6 Q So that the threshold level
7 in Whitehorse is determined by the comparative costs of
8 electricity? Where that's not the case in Yellowknife?

9 A In this case, that's right.

10 Q I see. Now, in terms of the
11 distribution costs within each community, they appear, I
12 take it, on -- at least inferentially on the graph attached
13 to your evidence, is that correct?

14 A The distribution costs?

15 Q Yes. Let me ask it another
16 way. The cost per household of natural gas, which is Column
17 4 of your vehicle.....

18 A Yes, yes.

19 Qbuilds into it both a
20 cost of gas at the gate and the distribution system costs.

21 A That's correct.

22 Q Yes. And, part of the distri-
23 bution system costs depends on the percentage of coverage,
24 which is the first column in the chart. That's right?

25 A That's correct, yes.

26 Q And can you give my very

Miller, Ellwood

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1 briefly how you came to your estimates of percentage cover-
2 age in each community?

3 A Yes, Pacific Northern Gas
4 Company did this work for us, they're the people who estimated
5 the potential number of customers, the load and the costs of
6 facilities and, based upon their experience in Northern
7 British Columbia, and looking at the situation here and the
8 differences in the load characteristics that exist in these
9 communities -- for instance, how many people are using
10 electrical heating and how many commercial establishments and
11 government houses and so on, they arrived at these numbers
12 as realistic numbers, based upon their experience.

1 Q Then in addition to
2 the marketing coverage, you have the capital cost figures
3 which appear in your application at 5(a) Page 6.17, the
4 table you and Mr. Marshall dealt with this morning.

5 A Yes, right.

6 Q The trouble I had with
7 that table was to know why your capital cost figures in the
8 year of construction for distribution systems, appear to
9 be carried forward through future years.

10 I take it your answer to that is
11 that their costs laid out in the first year and that's all?

12 A Well, they represent
13 the investment in facilities in a given year, so for
14 instance in the case of the laterals, the investments made
15 the first year and that same amount is carried from year
16 to year. In the case of distribution where you will add
17 customers over the years, you will see that there are
18 incremental costs added in each year to reflect the costs
19 of additional distribution customers.

20 Q Yes. Now the costs
21 covered by the capital cost I take it, relate to the pipe
22 being laid from street to street in each community? The
23 net work in each community that --

24 A Just what the
25 distribution costs include?

26 Q Yes, the capital costs

1 of the distribution system on that graph, relate to the
2 net work of pipe in each community.

3 A Well, the cost of the
4 distribution include the costs into the meter.

5 Q Yes. Do they include
6 any facility for storage of gas in each community?

7 A No.

8 Q You and I went through
9 this before. If a risk of line breakage should be
10 determined to necessitate storage facilities, they would
11 have to be built into the distribution system costs, is
12 that not so?

13 A I suppose. Normally,
14 what happens in the business though is that critical loads
15 are encouraged if they wish, to put in standby fuel
16 supplies. I know that has been done. It hasn't been done
17 very often because the reliability of natural gas service
18 is very high, but I suppose if someone felt that that
19 was necessary to have a standby source of energy, then
20 that would be additional costs that they would have to bear.

21 It's not done very commonly, but
22 if someone felt the need to do that, they'd have to build
23 those facilities.

24 Q I'm very green at this
25 but I would assume if you had households in Whitehorse
26 relying on gas for heating, an interruption in that gas

1 would make switching to an alternative fuel source quite
2 difficult. You can't convert your furnace fast enough.

3 A Yes, I think that
4 you'd have to though, look at the reliability and what would
5 the cause be. If there was a main line problem causing
6 the flow of gas to stop in the main line, then you'd have
7 line pack which can be drawn upon for a considerable
8 length of time to keep the customers supplied with gas. If
9 there is a lateral break, then you'd have your crews there
10 to fix it or make temporary arrangements to fix it, so that
11 gas service could be continued.

12 It's not an uncommon. It's a
13 standard arrangement in the industry really.

14 Q Yes, and you and I went
15 through this before but just so I'll understand, I take it
16 you're not saying that the risk of interruption in the
17 main line can be met by the provision in each household of
18 alternative fuel sources - fuel oil or electricity?

19 A Could you restate that
20 please.

21 Q You're not saying that
22 the risk of interruption in the main line can be met
23 household by household by the provision of an alternative
24 fuel source - fuel oil or electricity? You're saying it
25 has to be met by the capacity to repair the main line
26 quickly?

Yes.

1 Q You're not talking
2 about seventy-five per cent of the population?

3 A No, it would be
4 seventy-five per cent of the potential customers.

5 Q Yes. So that this --
6 and they would all be either homeowners, home renters or
7 commercial establishments?

8 A Yes.

9 Q And I take it from that
10 that this benefit is not one that is spread across the
11 entire population, but goes specifically to homeowners,
12 home renters and commercial establishments in the Yukon?

13 A I don't understand --
14 spread across -- what do you mean?

15 Q Well, if I'm not a
16 homeowner or a home renter and if I don't operate a
17 business in Yukon, I get no benefit out of this scheme?

18 A I'm not sure what the
19 other category is.

20 Q You have to be a home-
21 owner or a home renter or a commercial establishment to
22 benefit from your scheme? Surely, that's obvious. I
23 mean that's who you're supplying gas to.

24 A Yes, but the way you
25 phrase your question there, there was another category and
26 I wasn't sure what the category was and I -- certainly set

1 up for residential and commercial --

2 Q Yes. What I'm asking
3 you to turn your mind to is whether you've given any
4 thought to the prospect of spreading this benefit, which
5 goes to those categories that you and I agree on, across
6 the entire population of Yukon. Is there any way that that
7 could be done?

8 A Could you just restate
9 that please.

10 Q Well, what I'm getting
11 at is this, Mr. Burrell, this scheme which has great
12 benefits to the people who will be in your lefthand column,
13 applies only to homeowners, home renters and commercial
14 establishments and indeed, only to those categories in
15 six communities in Yukon.

16 A Yes.

17 Q I was trying to see if
18 you'd turned your mind to the spreading of that benefit
19 across a wider population than those persons.

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1 A Did you have some way
2 in mind that you are --

3 Q Well, how is the resident
4 of Dawson going to take advantage of this if you're not
5 going to run a lateral to Dawson? Is this scheme of
6 any benefit to him?

7 A Well, the scheme that
8 we have -- the plan that we have here is directed to the
9 communities adjacent to our routing. I guess the supply of
10 gas, as we see it, to Dawson would just be an uneconomical
11 undertaking. That's not an uncommon thing even in Alberta
12 and Saskatchewan. There are certain communities that aren't
13 able to get gas because of their distance from a main line.
14 That would not be an unusual thing.

15 Q Perhaps it's too much
16 to ask you to take your mind back to when we were in Haines
17 Junction, but you will recall there that several people
18 were referring to a scheme which would provide an energy--
19 a fund that would be available to those beyond those simply
20 in the highway community, to reduce their energy costs as
21 well?

22 MR. HOLLINGWORTH: You mean all
23 of the citizens of the Yukon Territory?

24 MR. GOUDGE: Yes, I think that
25 was the inference and I simply wondered if -- ?

26 MR. BURRELL: We hadn't, but

1 we're in the gas business -- pipeline business really, and
2 we have looked upon this as a benefit to those communities
3 along the highway. We haven't addressed that possibility.
4 I don't know how you would make it work either, for that
5 matter.

6 Q I see. Now turning
7 then, Mr. Burrell, to one or two matters of a general kind.
8 In volume nine of your application, I don't know if you
9 have it there, but there is a Bar Chart, page 9A - 15.5.

10 A Yes.

11 Q And it shows
12 pipeline construction as item 21 beginning in June of year
13 three.

14 A Yes.

15 Q And year three in this
16 chart is 1979. Is that right?

17 A Yes.

18 Q It's simply a matter
19 of curiosity, but in reading through the Federal Power
20 Commission report to the President, their description of
21 your project, which is found at page 1.45 says that, and I
22 quote:

23 "Alcan proposes to commence pipeline construction
24 throughout it's entire system in April of 1980."

25 A When you refer to Alcan,
26 are you referring to the Alcan Company perhaps?

1 Q Well, that's one
2 possible explanation, but the context doesn't appear to me
3 to indicate that, because the next sentence says:

4 "All construction in Alaska is projected from
5 April to the end of September. In Canada,
6 some winter construction is planned."

7 I assumed from that that they are
8 talking about your entire project?

9 MR. GIBBS: I don't think Mr.
10 Commissioner, that the witness should be expected to
11 speculate on what the Federal Power Commission says?

12 MR. GOUDGE: Well the Federal
13 Power Commission, Mr. Gibbs, is referring to a proposal by
14 Alcan --

15 MR. GIBBS: And it's an Alcan
16 Pipeline.

17 MR. BURRELL: Alcan Pipeline?

18 MR. GOUDGE: Well, perhaps you
19 can help me, or indeed I would be grateful if you could
20 clear up. It's simply an inconsistency which seemed to me
21 I'm sure had an easy explanation. I just wondered what it
22 was?

23 MR. GIBBS: Maybe he could see
24 the book, and he might be able to tell you right now.

25 MR. GOUDGE: Sure. The simple
26 thing to do, sir, is to have Mr. Burrell look at that with

1 Mr. Gibbs at the break. I'm sure it's not a matter of --

2 MR. CHAIRMAN: I would think in
3 the context --

4 MR. GOUDGE: Yes.

5 MR. CHAIRMAN: -- my recollection
6 as to whether that is referenced to the entire system and
7 the discussion in that part of the F.P.C. Report does seem
8 to be directed to entire systems, rather than the Alcan
9 Company section alone. But that's something that should
10 be easy enough to check out.

11 MR. GIBBS: We'll look at it at
12 the break.

13 MR. GOUDGE: I would be grateful
14 sir.

15 Then, Mr. Burrell, the assumption
16 that you make in predicting pipe laying here as of June '79,
17 is a permit as of January '78, is that correct?

18 MR. BURRELL: We'll check into
19 this, but certainly the recollection that we have is that
20 this particular construction schedule is based upon the
21 permit award in the latter part of this year or early 1978.
22 If it's any different than that, I'll correct it later.

23 Q Yes, and I take it from
24 that the processes you show down to number eight on that
25 Bar Graph as taking place over October, November and
26 December of year one, that is 1977, would be delayed and

1 commenced at the beginning of year two, following the
2 permit?

3 A Much of that is, of
4 course, -- some of that is work which is in the office,
5 but here again, I guess you would have to find out the
6 timing of the permit and what the permit might allow you
7 to do on an initial basis.

8 Q Yes. Putting it another
9 way, you could compress those activities into a time frame
10 commencing January '78, that would still permit you to
11 lay pipe in June of '79?

12 A That's my understanding.
13 Here again, if for any reason there is some modification
14 that is required, I'll make it known.

15 Q Yes. So, you're talking
16 an eighteen month period, between permit and pipe laying as
17 a realistic time frame?

18 A That's about right, yes.

19 Q If you were really
20 pressed, how far could you compress that?

21 A I can't answer that.
22 It would have to be answered by the people that are
23 responsible for the engineering and construction.

24 Q If it's much below
25 eighteen months, I would be grateful if you would advise,
26 perhaps that's not the right word -- much less than eighteen

1 months. How's that?

2 Just so I'll understand the
3 Bar Chart, Mr. Burrell, the pipeline construction
4 line of the chart, number 21, refers, I take it, to all
5 the fascits of pipe laying from stringing, ditching,
6 through welding and backfilling. Is that right?

7 A Yes, that's my
8 understanding.

9 Q The functions that your
10 slide presentation in the communities --

11 A Well, the right-of-way
12 grading is included as item number 20, and the testing
13 is included as number 22, so, from the grading to the
14 testing, that is basically what was covered in the slide
15 presentations.

16 Q Yes. Now, part of the
17 time frame between permit and pipe laying is taken up with
18 things like the ordering and delivery of pipe.

19 A Yes.

20 Q And when you say
21 eighteen months as the time frame that now appears operative
22 I take it that's sufficient to order and deliver the
23 pipe necessary?

24

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1 A Certainly, in my understand-
2 ing, there's been a lot of work done on that and I'm really
3 not the person to be talking about that sort of details, Mr. Mirosh,
4 who's in charge of the -- vice president of Engineering
5 Construction, is much more familiar with the details of this
6 than I am. If we were wanting to get into those sort of
7 details, he's by far the best one to speak to.

8 Q Yeah, I have no further
9 details to ask. Perhaps you could check with him at the
10 break and if there's any difference in your answer as a
11 result of talking to him, you could tell us later on this
12 afternoon.

13 Now, one other aspect of the sched-
14 ule set out in that Bar Chart, is the completion time table
15 proposed and you're now proposing delivery of gas in the
16 fall of 1981, is that right?

17 A Initial deliveries, yes.

18 Q Yes. And that production
19 schedule requires a certain degree of productivity, no doubt
20 about that?

21 A Yes.

22 Q And one that has been com-
23 mented on in other forums.

24 A Oh, yes, like the National
25 Energy Board and so on?

26 Q Yes, that's correct.

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1 A Yes.

2 Q Yes, and one other aspect
3 of the completion date is, if I can put it this way, the
4 relative novelty of this kind of big inch, buried, chilled
5 gas pipeline. Would you agree that that's in the broad
6 sense, a factor which may affect the schedule you propose?

7 A All the factors that are
8 involved with the construction, engineering construction,
9 design and so on, that apply to this project are taken into
10 consideration in developing this schedule.

11 Q Yes. And the matters of
12 novelty and required productivity, if they cause lags in
13 the schedule, are they likely to be made up with increases
14 in manpower applied to the project?

15 MR. GIBBS: Mr. Commissioner, I
16 really do think that if my friend wants to go into these
17 questions, we should add Mr. Mirosh to the panel, because
18 those are within his responsibility and I don't think Mr.
19 Burrell is comfortably answering them. He already said Mr.
20 Mirosh should be the one, so, if it would help, we're pre-
21 pared him to this panel.

22 MR. GOUDGE: That would be very
23 helpful, sir. I just have a couple more areas and Mr.
24 Mirosh and I are old acquaintances. I'd be happy to see
25 him added, if he doesn't mind.

26 A You may get some disagree-

1 ment with your use of your word "novelty".

2 MR. BURRELL: Yes, that was the question
3 I was going to ask next, but I won't get a chance to, I
4 guess.

5 MR. EDWARD MIROSH: Sworn

6 MR. GIBBS: Perhaps Mr. Mirosh might
7 describe his responsibilities in Foothills. I think this
8 is the first time he's appeared.

9 MR. CHAIRMAN: If you'd be good
10 enough to do that Mr. Mirosh.

11 MR. MIROSH: Yes, I'm Vice President
12 in charge of Engineering and Construction and I'm responsi-
13 ble for the portions of the volumes that we have filed that
14 deal with those matters.

15 Mr. Goudge, although I was listen-
16 ing to the questions that you had asked, I wasn't listening
17 that carefully.

18 MR. GOUDGE: Nothing new about that
19 Mr. Mirosh, nobody does. Let me take you back to the FPC
20 decision, the FPC's report to the President, because I
21 think it's probably nothing more than a matter of clarifica-
22 tion. You'll see at page 1-45, of that volume, under a
23 kind of project description heading, the report refers to
24 Alcan's proposal as to commence construction in 1980.
25 I'm simply wondering how that squares with what we've been
26 told here about a 1979 start up date.

1 MR. MIROSH: Well, there's no
2 question that 1979, in the summer, is when we plan on doing
3 some construction in the Yukon. Alcan Pipeline, in Alaska,
4 does start in 1980, so I have a feeling that this statement
5 may have to do with the Alcan Pipeline.

6 The subsequent recommendation to
7 the --

8 Q That is the ---

9 A Oh, this is the subsequent--
10 elsewhere, elsewhere in this volume, there is reference to
11 1979, because I recall that -- working on some rebuttal
12 material to that.

13 Q Well, I've only got as far
14 as page 45.

15 Now, the other questions that I
16 was asking, Mr. Burrell, Mr. Mirosh, are, relate to the
17 construction schedule that appears in your bar chart, Volume
18 9. And, I was suggesting that dealing with the time from
19 commencement of pipe-laying to the delivery of gas, there
20 were a couple of factors which, if the predictions proved
21 less than accurate, would require the introduction of more
22 manpower. One factor is the relatively high productivity
23 being demanded of your spreads in this section of the major
24 project, and the other is the novelty of the project itself
25 leading perhaps to unanticipated problems.

26 A These are two very points

1 that I guess we'd take issue with you on, because the pro-
2 ductivity that we've factored into the pipeline proposal is
3 conservative in terms of time available and in terms of the
4 sort of work that is accomplished in winter or under winter
5 conditions in Alberta or elsewhere in the South of 60.
6 And we don't anticipate conditions to be very different
7 here, under wintertime construction, or summer construction,
8 than we do in various parts of Alberta.

9 So that is not, I think, a consid-
10 eration. The novelty of the pipeline is something that
11 we've tried very hard to keep conventional. In that sense,
12 I would argue with you that there is very little novel with
13 this line. The only, I think, innovations that come to
14 mind is the pipe metallurgy. Here again, this pipe, simi-
15 lar pipe to what we are proposing has been purchased, rol-
16 led in Canada, installed in the ground, welded, tested, so
17 that novelty, I think, does not exist either.

1 Q Dealing with the first
2 of the two points, I take it you'd acknowledge that the
3 FPC at least, doesn't concur entirely with your comments
4 about conservative productivity estimates?

5 A No, the Federal Power
6 Commission, I believe, were a little mislead in some
7 material that they used. They tended to utilize material
8 that El Paso-Alaska supplied to the Federal Power
9 Commission, related to spread requirements in Canada and
10 manpower requirements and the El Paso-Alaska material
11 was in one of their briefs, stated slightly incorrectly and
12 the FPC picked this up and put this into their recommen-
13 dation.

14 Q Without debating with
15 you, either proposition, either the conservative product-
16 ivity or the novelty of the project, would you agree that
17 if I'm right, greater manpower than you've predicted will
18 be necessary to keep you on schedule?

19 A Well, yes, if we ran
20 into productivity problems or design problems or any
21 problems that are unanticipated, then we would have to
22 either put more manpower in or take a longer time.

23 Q And of those choices,
24 the first is preferable? Given the cost of the project?

25 A The first would likely
26 be preferable but again, we've considered productivity very

1 seriously and we're not stretching productivity at all, nor
2 are we pushing novelty on this line. These are two things
3 that we very much emphasized as building blocks for what
4 we've been proposing, to eliminate novelty and to be
5 conservative on productivity.

6 Q And indeed once again,
7 taking the Alaskan example, isn't the explanation or one of
8 the explanations for the relevantly larger than predicted
9 number of employees used on that project. The fact that
10 unanticipated problems did arise there?

11 A Well, I could go into
12 quite a dissertation about the Alyeska project. Novelty
13 played a very large role there, in difficulties that they've
14 had. Also the fact that north of the Yukon River, a road
15 did not exist until that project was developed. There are
16 many differences between Alaska and what we are talking
17 about.

18 Q Yes, I'm sure there
19 are. I'm just suggesting to you that Alaska makes the
20 point you just made, that where either novelty or a lack
21 of sufficient productivity cause you to fall behind in your
22 schedule, the solution is more manpower not taking longer?

23 A I would estimate that
24 the solution would be more manpower because it would be
25 more advantageous to try and meet the target date but again,
26 I think we've taken an extremely conservative approach, both

1 in planning the construction and in the design of the plan.

2 Q Now, in terms, Mr.
3 Mirosh, you're welcome to stay. I just have one or two
4 questions of Mr. Ellwood on manpower. Mr. Ellwood, you
5 were going to -- let me ask you -- with the twenty-three
6 hundred number we've been using as your peak manpower levels,
7 I wonder whether you've been able to break out the add-
8 itional manpower required by the forty-eight inch line as
9 opposed to the forty-two inch line, break it out into the
10 categories that you used in your original application man-
11 power chart?

12 MR. ELLWOOD: No, I haven't
13 been able to break down the manpower forty-eight inch that
14 way and we are currently working on coalescing, if you will,
15 the manpower in the forty-two inch to make it comparable
16 to what we have for the forty-eight.

17 Q You're going to use
18 the forty-eight inch categories that you recited this
19 morning?

20 A Yes.

21 Q I see. Can you go the
22 other way and put your forty-eight inch categories into the
23 forty-two inch categories you used?

24 A I guess it could be
25 done. We just haven't done that yet, Mr. Goudge. We
26 haven't broken the forty-eight inch manpower down into those

1 categories, so it would take us some time to do that.

2 Q Perhaps you and I could
3 talk about that at the break, Mr. Ellwood, and see where
4 we go from there on that issue. Okay?

5 A Fine.

6 Q Now Mr. Burrell, back
7 to you for a moment if I might, you were asked at
8 Destruction Bay if you can recall, about the use of gas in
9 Prudhoe Bay by way of reinjection into the reservoir in
10 Prudhoe Bay. Your estimation there as I recall it, was
11 that for roughly two to four years after oil began to flow,
12 reinjection was economic and after that there might be
13 difficulties.

14 Is that a fair recollection of
15 your view?

16 MR. BURRELL: Yes, here again,
17 I am not a reservoir engineer. All I was doing at that
18 time, was responding to a question based upon some infor-
19 mation I had had with other people discussing it. But
20 certainly, that's a statement that I recall I said.

21 Q Yes and I take it
22 that since it's based on conversations, it's not -- you've
23 done no studies as to --

24 A I haven't personally,
25 but there have been a number of studies done to my
26 knowledge, but I haven't personally done them.

1 Q Has your company done
2 any studies like that?

3 A Sure, we've had access
4 to certain studies, but I don't recall us having done them.

5 MR. GIBBS: Is there studies
6 into how long the gas could be injected into the reservoir?

7 MR. GOUDGE: Yeah.

8 MR. GIBBS: Well, I think that's
9 unlimited time isn't it?

10 MR. GOUDGE: I see.

11 MR. GIBBS: I better stop
12 giving evidence. Perhaps Mr. Mirosh is an economic --

13 MR. GOUDGE: I'm content with
14 that answer, Mr. Chairman.

15 MR. MIROSH: Although I don't
16 know the details of it Mr. Goudge, our partner company,
17 Alcan, has done the reservoir study works, since they're
18 involved with the primary connection. But I don't recall
19 the details. These studies have been done though by our group.

20 Q Well, once again, my
21 curiosity was twiggged because the other page of the FPC
22 Report that I've read, Page 3-17 and if none of you gentle-
23 men feel comfortable answering these questions, please
24 indicate it. I don't want to take you beyond what you feel
25 are your areas of expertise, but at Page 3-17 of the FPC
26 Report to the President, this statement is made - the gas

1 produced during at least the early years of oil production
2 can be advantageously utilized for reinjection in order to
3 maintain reservoir pressure and thus sustain oil production.
4 The gas should therefore, not be viewed as a byproduct
5 which has to be sold or that should even necessarily be
6 sold during the initial years of oil production.

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1 From that the implication that
2 indeed it's advantageous to reinject during the early years
3 of oil production. Are any of you prepared to agree or dis-
4 agree with that?

5 MR. BURRELL: I don't think we're
6 experts in those areas, that's what we've understood, that
7 they have to reinject in order to get the reservoir charac-
8 teristics established. I think we're getting well beyond
9 our area of expertise by getting into this too far.

10 MR. MIROSH: I could just add
11 one thing and I'm not expert here, either, but I have heard
12 testimony given by the reservoir people and one of the prob-
13 lems with continuing to reinject is that there's a consider-
14 able amount of fuel gas utilized in the reinjection process
15 so that there's a depletion of gas occurring continually.

16 MR. BURRELL: I would have tied
17 it to the economy at the same time.

18 MR. MIROSH: There's some point
19 at which it's more economic to bring it out.

20 MR. GOUDGE: And use water to
21 keep up the oil pressure?

22 A Yes, but I'm venturing
23 outside of my field here.

24 Q Yes, that had occurred
25 to me and I was wondering whether it wouldn't take the same
26 energy resource to pump the water in as it would to pump the

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1 gas in but I guess both you and I are over our heads, if I
2 can put it that way, dealing with that.

3 MR. BURRELL: There's lots of
4 discussion, I don't know if we want to put that to a dis-
5 cussion on record, though, because I certainly don't feel
6 there's experts in this area to really be testifying.

7 Q Okay, well, I won't
8 press that.

9 And I take it, then, your company
10 position is as recited by Mr. Gibbs? (laughter)

11 Now, Mr. Miller, one or two
12 questions for you, if I could, please.

13 At page two of your evidence,
14 you refer to the change in assessment of the forty-eight inch
15 line. Is that right?

16 MR. MILLER: In that calcu-
17 lation I was assuming that the Government would update
18 their regulations to include a forty-eight inch pipe.

19 Q And that they would
20 issue a new ordinance or would issue a regulation pursuant
21 to their ordinance with a rate for a forty-eight inch line?

22 A That's right, yes.

23 Q And you assumed that
24 what, what that rate would be, I take it?

25 A That's correct. Yes.

26 Q I take it there's no

1 law of nature that sets the rate that the rate you've as-
2 sumed?

3 A No, that's correct,
4 there's no law of nature that sets the rates they're now
5 using, either.

6 Q Yes, they could set a
7 higher rate for taxing the pipe, the forty-eight inch pipe,
8 than the one you've quoted?

9 A Or a lower one.

10 Q Or a lower one, quite
11 right. And I take it from your calculations that this Ord-
12 inance applies that mill rate, if that's the way it's des-
13 cribed, to about twenty miles within the Yukon.

14 A I'm sorry, twenty miles?
15 No.

16 Q Well, I tell you the
17 way I got that, I divided one hundred and forty-seven thous-
18 and, four hundred and forty into three million, two hundred
19 and a hundred thousand and four hundred and sixty-eight,
20 did I do it wrong?

21 A Right.

22 Q How should have I done
23 it?

24 A Take the four hundred
25 and eighty miles times one hundred and forty-seven thousand
26 times twenty-eight mills.

1 Q I see. Okay.
2 So that the Taxation Ordinance
3 applies the full length of the line?

4 A That's correct.

5 Q I see. Now, on the
6 next page of your evidence, not on the next page, page four,
7 you refer to income tax provisions and you refer there in
8 the last phrase of the text under that heading to "known
9 major factors". What are they?

10 A For example, in working
11 out your estimates of income tax to come back to a province
12 or to the territory, they normally use history, which I in-
13 dicated in my previous study, two years prior history, if
14 you like, but there have been a number of instances where
15 precedent, because of some particular known factor, i.e. about
16 two years ago, Cyprus Anvil started paying income tax for
17 the first time. That was rolled into the estimate for that
18 year.

19 Q I see.

20 A I'm suggesting in this
21 case that one can roll in a major known factor, i.e., pipeline.
22 That's what I'm referring to.

23 Q That's the major un-
24 known factor, the major factor you were speaking of?

25 A That's right.

26 Q Now, lastly, in connec-

1 tion with your evidence, on page two, the fuel oil taxation
2 revenue accretions you estimate are set out on page two,
3 is that right?

4 A That's right.

5 Q Small point, but did
6 you make any assumption there for the switching of users of
7 fuel oil to gas?

8 A No, the -- you're
9 thinking of the heating fuel tax...

10 Q Yeah.

11 A That amounts to such
12 a small number, it's something like ten thousand a year,
13 I'm sorry, it's something like, let me think of that for a
14 minute, I think it's something like sixty thousand per annum
15 total heating fuel tax that's now collected. So --

16 Q Whatever reduction
17 in that there would be through switching would be pretty
18 minimal?

19 A That's right. Pretty
20 low.

21 Q I see. In any
22 event, the figures you use don't take that into account?

23 A That's correct.

24 Q Now, finally, sir, I
25 have a few questions on in-migration, many of which have
26 been dealt with so I won't have to ask them but, Mr. Burrell,

1 let me begin with you. No doubt from all the conversation
2 we've had about it that the company's position is to control,
3 so far as possible, excessive in-migration?
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1 MR. BURRELL: Yes, we have said
2 that in our evidence that we want to structure our project
3 in such a manner that it will minimize the undesirable
4 in-migration.

5 Q Yes, and the programs
6 you have are those set out on page five.--

7 A Yes.

8 Q -- where you recite the
9 policies (a) through (e) that you say will serve to
10 discourage excessive in-migration.

11 A Yes.

12 Q One of the things you
13 don't recite there that, I take it, is implicit in policy
14 (a) is your advertising policy?

15 A I think we mentioned
16 that earlier.

17 Q Yes.

18 A Certainly the advertising
19 program that we are prepared to undertake is an important
20 part of the program.

21 Q Yes, and just pausing
22 there for a moment, you cover it in some detail on the
23 previous page where you refer to that commencing at the
24 time of the permit. Let me suggest to you whether it isn't
25 much more desirable that that campaign commence immediately
26 upon the decision in principle?

1 MR. GIBBS: What's the difference?

2 MR. GOUDGE: Well, the permit
3 process we have been -- I don't know.

4 MR. BURRELL: It's the indication
5 that the pipeline is going to be awarded.

6 Q I see. You mean by
7 that that you are prepared, if a decision in principle is
8 made in your favour September 1, to commence your advertising
9 campaign immediately?

10 A Yes.

11 Q Okay. And I take it
12 that means that plans are well under way to get it off the
13 ground in the next six weeks?

14 A Yes. Mr. Ellwood, I
15 believe, talked to that yesterday.

16 Q Yes. Now, you are
17 careful to use the word 'discourage' in your answer to that
18 question six as put to you. That indicates to me and I
19 would invite you to agree with me, that these policies
20 won't guarantee a control of excessive in-migration?

21 A We're satisfied that
22 they will discourage, as we said earlier in our evidence,
23 that it -- you know, we do live in a free country and --
24 I'm looking for the word in here -- it's unrealistic to
25 consider that Canadians can be prohibited from coming to
26 Yukon to seek employment. That's why we feel that our

1 policies are set up to discourage in-migration. But we
2 don't have control over the movement of people.

3 Q And your policies, as
4 well, make some assumptions about behavior patterns of
5 various people. Let me give you an example. Policy (d),
6 housing construction workers in camps. You said yesterday
7 that your camps would encourage those Yukoners who worked
8 on your project to live in camps, but you weren't going to
9 compel them to live in your camps.

10 You make the assumption that they
11 will want to live in your camps.

12 A Yes. We're making the
13 opportunity for them to live in the camp and we think that
14 the opportunities will be there.

15 Q Yes, and if that
16 assumption that they will want to live in your camps proves
17 not to be accurate, then there is going to be more in-migration
18 than you anticipate.

19 A Because the Yukoners
20 don't live in the camps?

21 Q Well, there is going to
22 be more of an impact than would otherwise be the case.

23 A In what way?

24 Q Well, I suppose I could --
25 let me take you through it. If there were more Yukoners
26 living in town, the multiplier is higher and the impact is

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1 fired because that is offered to them, you make an
2 assumption that they are willing to go. You aren't prepared
3 to compel them to go?

4 MR. BURRELL: We have to make that
5 provision for them to go. You can't drag a guy on to a
6 plane, but --

7 Q Right.

8 A -- but certainly the
9 indications are that, as I was mentioning yesterday, in
10 Alaska that the tendency would be for the -- and the
11 indications are that the workers do in fact return home.

12 Q I understand that
13 your assumption you feel is accurate because of Alaskan
14 experiences?

15 A And Fort Nelson too. I
16 think from what the Mayor was saying.

17 Q Nonetheless, should
18 that assumption about behavior prove less than accurate,
19 you're going to have more of a problem here than you predict?

20 A I suppose that's so.

21 Q Yes. So that if that --
22 sorry, Mr. Ellwood, do you want to add to that?

23 MR. ELLWOOD: I just wanted to
24 add something there, Mr. Goudge. If one assumes that a
25 construction worker at the end of the project here does not
26 go home, that he does not take his plane ride home to his

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19 you're going to have more of a problem here than you predict?

20 A I suppose that's so.

21 Q Yes. So that if that --
22 sorry, Mr. Ellwood, do you want to add to that?

23 MR. ELLWOOD: I just wanted to
24 add something there, Mr. Goudge. If one assumes that a
25 construction worker at the end of the project here does not
26 go home, that he does not take his plane ride home to his

1 family or whatever, if he perhaps stays some time in the
2 Yukon, his behavior then becomes very much like a tourist
3 while he's here. I think it's an entirely reasonable
4 assumption to assume that the man is eventually going to go
5 home. He's not going to stay here the rest of his life and
6 do nothing. So he will be going home if he does spend some
7 extra time here, it will be as a tourist or a visitor.

8 Q Yes. All I am seeking
9 to try to establish is that these policies which you say
10 serve to discourage excessive in-migration, make certain
11 assumptions about the behavior of your employees.

12 MR. BURRELL: Yes, and I think
13 that's based upon, as we said, the Fort Nelson experience,
14 and other experiences.

1 Q And the simple next
2 step is that if those assumptions prove to be less than
3 a hundred percent accurate, there's a greater risk of exces-
4 sive in-migration?

5 A Mr. MacLeod has a
6 comment on that, I believe.

7 MR. MACLEOD: Well, I believe
8 that economic conditions determine an upward limit to in-
9 migration.

10 Q Sure, and we'll come
11 to that in a minute. You're assuming the economic man but
12 I simply invite you to agree that if your assumptions prove
13 less than a hundred percent accurate, you will have more
14 in-migration, more tendency towards excessive in-migration.

15 A I don't know about
16 excessive --

17 Q -- than if your
18 assumptions are accurate?

19 MR. BURRELL: I don't feel about
20 excessive but certainly we think these are reasonable, we
21 think they'll work, based on experience, but certainly, if
22 in some instance, they're not totally, don't work totally,
23 then there may be some additional problems but I think you
24 have to be flexible enough in your program to adjust to
25 those situations and it may be just an adjustment in a cer-
26 tain area to overcome whatever difficulty may occur.

1 Q Sure, and you're res-
2 ponsible enough to admit that your policies may not control
3 excessive in-migration totally when you say that, on page
4 six, if for some reason, even with these undertakings, ex-
5 cessive in-migration occurs as a result, you'll work closely
6 with the appropriate authorities to try to alleviate the
7 situation.

8 A Yeah, that was the
9 point I was trying to make a minute ago.

10 Q Now, Mr. MacLeod,
11 dealing very briefly with your model, one or two facets of
12 it, you have an operation and maintenance employment multi-
13 plier of one which, in part, is derived from your analysis
14 of the mining industry here, is that right?

15 MR. MACLEOD: Yes.

16 A And my concern about
17 that assumption relates in part to the fact that miners in
18 many cases don't have families with them, isn't that so?

19 A I don't think that's
20 the case.

21 Q Sorry, Mr. Miller.

22 MR. MILLER: I think, Mr.
23 Goudge, I could answer that. The largest mine in the Yukon
24 has sixty-nine percent of the employees who are married.

25 Q That's Cyprus-Anvil ?

26 A That's right.

1 Q In any event, if there
2 is a difference between the degree to which miners have
3 families and O & M people have families, your multiplier
4 should be larger. Do you agree with that?

5 MR. GIBBS: It sort of follows,
6 doesn't it?

7 MR. GOUDGE: Terrific.

8 MR. MACLEOD: But I determined
9 the number of dependents by using the ratio of total popu-
10 lation to total labour force, that reflects the entire
11 population --

12 Q -- I'm not speaking
13 of dependents, I'm speaking of the degree to which families
14 create induced employment. Because you provide services
15 not simply for the breadwinner, but for the family.

16 A Yes.

17 Q So if the O & M people
18 are more likely to be there with families than miners, it
19 may be that your multiplier, for O & M, ought to be greater
20 than that seen in the mining industry.

21 MR. MILLER: Might I suggest,
22 Mr. Goudge --

23 Q Is that a yes or a
24 no, Mr. Miller?

25 A Well --

26 Q -- it's going both ways

1 at once. (laughter)

2 MR. MACLEOD: I don't know if
3 such a difference exists.

4 Q No, I don't know if it
5 does either, all I'm saying is if it does exist, as Mr. Gibbs
6 says, for other reasons, the answer's obvious, isn't it?

7 A Yes, .. yes.

8 Q Thank you. Then the
9 next part of your puzzle is the non-Yukoner construction
10 multiplier that you dealt with with Mr. Marshall this morn-
11 ing and, treading gently, let me suggest to you that you
12 have notionally attributed a zero multiplier for the non-
13 Yukoners on construction.

14 A No, I said this morn-
15 ing there was some secondary infringe^{ment}-/included in the base
16 figure --

17 Q -- yes --

18 A of 2311. I also said--

19 Q -- You don't include,
20 though, within this base figure of 20, sorry, sorry, carry on.

21 A And I also said this
22 morning that you arrived at the same result by applying a
23 multiplier of .18 to the entire construction work force.

24 Q Yeah, yeah, I under-
25 stood the point this morning about there being within the
26 non-Yukon construction segment certain possible secondary jobs.

1 A Yes.

2 Q You don't include in
3 that category, I take it, things like the jobs created be-
4 cause of the additional use of bars off campsite? Or the
5 additional jobs created as a result of the supply needs of
6 the camps that are contracted out locally?

7 A That's included.

8 Q That's included?

9 A Yes.

10 Q I see. Or the kinds
11 of needs that arise, for example, at the Whitehorse Airport
12 to deal with the increased traffic flow of your construction
13 workers going back and forth?

14 A Yes, that's included,
15 along with the increased need of people to install telephones,
16 additional postal clerks .

17 Q All that is included
18 in your seventeen hundred people?

19 A Yes.

20 Q
21 I would be surprised if you could build the pipeline and
22 install telephones and so on with seventeen hundred people.

23 A No. Where'd you get
24 the seventeen hundred?

25 Q I subtract six hundred
26 from twenty-three hundred.

1 MR. ELWOOD: My recollection,
2 Mr. Goudge, is that our figures on direct and indirect em-
3 ployment do not take into account the CNT employees who will
4 be maintaining communications equipment which we are using.

5 MR. MACLEOD: No, those are
6 included in the next category, the 420 plus the 137, that's
7 your induced employment, which includes the additional
8 government people.

9 Q I understand that but
10 you get that 420 by applying .7 to six hundred.

11 A Or by applying .18
12 to the entire 2311.

13 Q Okay. Okay. All I
14 want to seek to establish is that in answer to Mr. Marshall
15 this morning you were not seeking to demonstrate that within
16 your twenty-three hundred less six hundred you include
17 telephone installers, additional airport assistance,
18 additional waiters in the bars in Whitehorse and so on.
19 Those aren't people included in your construction force
20 segment of your employment graph?

21 A No, that's induced
22 employment.

23 Q Okay. Not induced,
24 as you were using it with Mr. Marshall this morning, such as
25 gravel truckers, to bring gravel in --

26 A That's related

1 employment.

2 Q Okay.

3 No, nor, indeed, do I take it
4 that you include in your seventeen hundred those that will
5 be added to the Yukon population to regulate this project?

6 MR. GIBBS: If we could tell
7 how many that's going to be, we could add them.

8 MR. ELLWOOD: No, we haven't
9 explicitly added to Mr. MacLeod's figures, say the three
10 social workers and other people that Mr. Miller has predicted
11 will be required here, nor have we made any specific allow-
12 ance for federal government personnel assigned to this
13 project, if you wish.

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1 Q Now, another facet of this
2 non-Yukoner construction multiplier, I take it, Mr. MacLeod,
3 is that you assume none of these people have their families
4 follow them here from outside Yukon.

5 A That's right.

6 Q Did that happen in Alaska?

7 A Well, the hiring conditions
8 were different in Alaska. People had to go there and look
9 for work. They had to move in.

10 Q And they took their family?

11 A Less than expected.

12 Q But a number of them...?

13 A A number of them did, yes.

14 Q And you say that's not going
15 to happen here?

16 A There's no incentive here
17 for someone to give up his residence outside of Yukon to
18 establish residence here.

19 Q There some incentive, I
20 suppose, to have their families nearby.

21 A Well, if they're working
22 seven days a week, but if there's working seven days a
23 week they wouldn't see them anyway.

24 Q Like working on this
25 Inquiry.

26 One other aspect of your model,

1 Mr. MacLeod, is that the base number is fixed at 2,300, in
2 terms of construction force, is that right?

3 A Yes.

4 Q And should, for the reasons
5 Mr. Mirosh and I were discussing, that number be expanded
6 to deal with my novelty and my liberal productivity esti-
7 mates then your bottom line change, there's no doubt about
8 that.

9 A That's right.

10 Q Another factor in your mo-
11 del is your Yukoner construction multiplier which is .7.
12 Is that right? And you say that that's the case, you
13 choose that rather than something as high as 1.0, because
14 you say nobody in secondary situations here will expand
15 unduly, given it's only a three year project.

16 A Unduly, yes.

17 Q Isn't that basically your
18 proposition?

19 A Yes. They will try
20 to achieve a greater degree of utilization of existing
21 capacity, rather than expand capacity.

22 Q Okay, well let me see if
23 you'd agree with a different assumption and that is that
24 because it's only a three year project, the incentive
25 when you expand to do so with the addition of labour,
26 rather than the addition of capital, because labour is more

1 flexible. The incentive to do it that way is quite high and
2 that you therefore have a tendency to a higher multiplier.

3 A I can see that there would be
4 a tendency to use more labour, but I've not come to the con-
5 clusion that you would have a higher multiplier.

6 Q In fact -- I understand that--
7 but, isn't it appropriate to build in as something higher
8 than .7 multiplier because, given the short range nature of
9 the expansion required, labour expansion is more likely than
10 capital expansion.

11 A Yes.

12 Q Now, on page 4 of your evi-
13 dence, you refer to something that I must say I didn't under-
14 stand. I'm sure it's very simple. You refer to a linear
15 growth factor in the middle of the answer on page seven.
16 Could you just tell me very quickly what that is?

17 A Okay, the idea there is that,
18 for example, in 1979, I project a population increase of
19 fifteen sixty-one.

20 Q Yes.

21 A Okay, well, those people
22 there are going to be subject to natural long-term growth.

23 Q Mr. Gibb's family concept.

24 A Well, there'll be new depen-
25 dents emerging out of that group.

26 MR. GIBBS: I didn't originate the

1 family concept.

2 MR. GOUDGE: You're the oldest one
3 around.

4 Sorry, Mr. MacLeod, I --

5 MR. MACLEOD: Yes, so I say in 1979,
6 I foresee a population increase of fifteen sixty-one. And
7 in the following twelve months we can expect that group to
8 grow at the same growth rate as the general population.

9 Q Okay, I understand. Then the
10 next thing in your model what I would like to deal with, is
11 the speculator factor, those coming up in speculation of
12 getting jobs. As you and I have already said, you assume
13 that these people, or the bulk of them, will be economic men
14 in the sense that they will get the message from a high un-
15 employment rate and turn around and go home. Is that right?

16 A Yes, presumeably it's work
17 wish is attracting the people.

18 Q Yes, I understand that. And
19 you predict that number at four hundred and ten, because you
20 assume that a twelve per cent unemployment rate is necessary
21 for them to get the message, given that it's an eight per
22 cent unemployment rate elsewhere.

23 A Yes, once they realize that
24 the prespects of employment are worse here than where they
25 started, they should turn around and leave and since everyone
26 is coming up the road, people who have not obtained employ-

1 ment in the Yukon would be heading down the Highway while
2 others are on the way up.

3 Q Yes, I understand that. I'm
4 just not clear on how you get the number of four hundred and
5 ten. Let me offer you one way of doing it and see if it's
6 the way you got it. You assume an existing unemployment
7 rate in Yukon of twelve per cent.

8 A Yes.

9 Q You add to that your three
10 thousand, one hundred and ten, I think it is.

11 A Three thousand, five.

12 Q Three thousand and five and
13 if you add to the three thousand and five the four hundred
14 and ten, you get a total of which four hundred and ten equals
15 twelve per cent.

16 A That's right.

17 Q That's the way you did it?

18 A Yes.

19 Q Okay. Now of the three thou-
20 sand and five, six hundred of those are Yukoners, they're
21 included within the twenty-three eleven. Is that right?

22 A Yes.

23 Q And those six hundred have
24 come out of the unemployment rate, haven't they?

25 A Not necessarily, they might
26 have had previous employment.

1 Q If they have come out of the
2 unemployment force, you need another six hundred in-migrants
3 to build the existing unemployment rate back up to twelve
4 per cent, don't you?

5 A Yes, that's not an objective,
6 but..... The idea is that if people are staying around now
7 to provide the twelve per cent rate. There's no reason to
8 expect that to change.

9 Q Well, as the Commissioner in
10 charge of twelve per cent unemployment rate, I have to get
11 six hundred more in-migrants to get my rate back up to
12 twelve per cent, don't I?

13 A Six hundred more will come.

14 Q Okay, so that gets us not
15 four hundred and ten coming in, but a thousand - four hundred
16 plus six hundred?

17 A That six hundred is the middle
18 of the range, more or less.

19 Q Okay, we'll add the middle
20 of the range to the four hundred and ten and you get a
21 thousand middle of the range.

22 A There are six hundred unem-
23 ployed Yukoners -- there's six hundred previously employed.

24 Q Those six hundred Yukoners
25 going into the work force, you say, may well come from the
26 unemployed. I'm saying that they do come from the unemployed

1 to get your existing twelve per cent unemployment rate, you
2 need six hundred new in-migrants.

3 A No, I don't go along with
4 that, because some of those six hundred jobs are in camps.

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1 You know, all of these people
2 coming to town.

3 Q Well, on page seven of
4 your evidence you say "there is little quantitative
5 difference on in-migration, whether those 600 positions are
6 filled with unemployed loafers, or if all are filled by
7 residents who are currently employed. If the former proves
8 to be the case, some 600 Outsiders can be expected to move
9 in and take their place on the unemployment ranks. That's
10 what I am suggesting to you will happen. You predict it
11 and I assume, therefore, that given 600 unemployed moving
12 into the camps, you've got 600 coming in from Outside to
13 take their place, and so the real transient figure is not
14 410 but about a thousand.

15 A Well, that's really an
16 extreme case though. Where everyone is previously
17 unemployed.

18 Q Okay. If I am right
19 and it's a thousand, you then add your multiplier to that
20 and you're talking fifteen hundred. Is that right? Because
21 you apply a .5 multiplier to all those people.

22 A Some of those 600
23 people end up in the induced employment also.

24 Q I'm not talking about
25 600 to go into the camps, I'm talking about the 600 who
26 move in from Outside to replace them on the unemployment roles

1 as you predict will happen on page seven.

2 I'm simply saying if you add those
3 600 to the 400 you say will come in the first place, you've
4 got a thousand and if you then add the dependent multiplier
5 of .5 you have fifteen hundred people coming in every couple
6 of days?

7 A I think you are
8 double counting there.

9 Q Where?

10 A The 420 is included
11 in the 600.

12 Q The 420 is the induced
13 employment.

14 A Well, it's in with the
15 410 -- the 410 is included in there.

16 Q No, the 410 are the
17 speculators, aren't they?

18 A No, because if you have
19 fifteen hundred people coming in, it would give you an
20 unemployment rate in excess of twelve percent.

21 Q Not if 600 of the
22 original unemployed have moved into the camps, that's my
23 whole point.

24 MR. CHAIRMAN: I was wondering,
25 Mr. Goudge, if a cup of coffee might assist. We'll take
26 a fifteen minute break.

Miller, Ellwood, Burrell,
MacLeod, Mirosh
Cr Ex by Goudge

1 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT).

2 MR. CHAIRMAN: Ladies and
3 gentlemen, I wonder if we might resume now.

4 MR. GOUDGE: Yes sir, whenever
5 you're ready. I just have a few more questions. Mr.
6 MacLeod, both you and I profited from the cup of coffee. I
7 wonder sir, just in general terms, if you have any comment
8 to make on the questions I was putting to you before,
9 because if not, I will propose to move on to the assumptions
10 in that speculator factor that I've been talking about.

11 MR. MacLEOD: I think there is
12 a fair amount of general confusion regarding these numbers.
13 I'd like to go over a few things again.

14 In my table, I indicate that
15 approximately four hundred and ten speculative job seekers,
16 plus dependents, might be physically present in the Yukon
17 at any given time during the construction period peak in
18 1980. This figure is a maximum which is predicted on
19 unemployment rate differentials between the Yukon and the
20 rest of the country.

21 I indicated earlier that the
22 majority of speculative employment seekers are motivated
23 by economic considerations. In general, my estimate of
24 the quantification of relevant economic factors that ignores
25 the adoption of the applicant's policies with respect to
26 in-migration, these policies will, of course, alleviate the

1 magnitude of in-migration. They would prevent my maximum
2 estimate of four hundred and ten a day of being realized.

3 In that way, would also prevent
4 the realization of the problems which have occurred in
5 Alaska, but it's very difficult to quantify the impact that
6 these policies would have on in-migration. For that
7 reason, I have not tried to do it. It's not included in
8 my numerical assessment.

9 In addition, I have been unable
10 to quantify the syphoning effect of other projects taking
11 place simultaneously in adjacent areas in Alberta and B.C.
12 That too would tend to reduce that maximum figure. I used
13 the term 'man years equivalent' yesterday to convey the idea
14 that the four hundred and ten peak figure is not made up of
15 the same people day in and day out.

16 I think I can concede at this
17 time that there was an error, that my choice of term was
18 incorrect, because the four hundred and ten figure is really
19 just a peak which cannot be maintained for very long.
20 Actually, I used an average day of about three to four
21 days, considering it takes about two days to come and go,
22 plus a couple of days here.

23 Furthermore, one cannot divide
24 three hundred and sixty-five by three and multiply by 410 to
25 arrive at some kind of annual total. There are several
26 reasons why you can't do this. Firstly, pipeline labour

1 requirements would be highly seasonal and I would suspect
2 that in-migration would follow the same seasonal trend.

3 Secondly, many in-migrants are
4 students at the present time and these people are only
5 available during the summer months, so they won't be coming
6 in the winter.

7 Thirdly, because I think the
8 vigorous winter climate in Yukon would deter quite a few
9 people from coming. So those are reasons why that maximum
10 cannot be sustained for very long.

11 I also think it's important to
12 place the cumulative in-migration figures in proper
13 perspective. Year for example, the Yukon received
14 about three hundred thousand visitors or tourists. Well,
15 I've done some calculations of that area and it looks as if
16 about sixty per cent of those people come during the peak
17 summer months of June, July and August.

18 This results in an average
19 during those three summer months of about sixty thousand
20 people per month. If we assume that on the average, these
21 visitors stay for two days, we could expect to see four
22 thousand people in Yukon on any given day. So what we're
23 really trying to do, is compare my four ten with that four
24 thousand and in that perspective, the four ten looks very
25 small.

26 Of course, the four ten, you

1 also have to add on the dependents which are two hundred
2 and five. That's really six fifteen as opposed to four
3 thousand tourists.

4 Also, I don't think it's
5 important to know what the average -- excuse me, what the
6 annual total will be because I think for infrastructure
7 planning purposes, it's important mainly to be able to
8 measure the sustainable flows. I gave that example this
9 morning at the town of Inuvik which prepares a population
10 estimate every year, which includes the normal resident
11 population that's there twelve months of the year, and to
12 that amount, they also add in the amount of hotel and hostel
13 accommodation. That might be something like two hundred,
14 two hundred and fifty places.

15 Now, these aren't the same
16 people day in and day out, but there is two hundred and
17 fifty places there which are going to be occupied by some
18 one and these places are going to require some kind of
19 public services - water, sewage, electricity and so on.
20 So the town of Inuvik is not concerned with the total
21 for the year, just with the flow - the sustainable flow.
22 I think that's applicable here.

23 Finally, as a general comment,
24 I would say that these speculative job seekers will
25 generally have the same impact on the local infrastructure
26 as the average tourist. They have to eat, they need some

1 kind of shelter, they need transportation, which means
2 purchase of fuel. There will be some differences in the
3 spending pattern. I imagine that transients or in-migrants
4 would spend less on meals, less costly meals, but there is
5 something good in this too. By spending less, they're
6 placing less burden on the local infrastructure than possibly,
7 many tourists would.

8 . . . Finally, I think I would point
9 out too that I stress again, that the only people I consider
10 to be in-migrants are people who give up their previous
11 residence in some other part of the country to come to
12 Yukon. For that reason, my population estimates do not
13 include the camp personnel, people who are flown in and
14 flown back out again. So I think that would be incorrect
15 to say that in the peak year of 1980, there will be a total
16 population increase of something like fifty-three fourteen.
17 Of course, that includes camp people, which as far as I'm
18 concerned, in our part of the overall population, they
19 probably have another residence elsewhere in the country.

20 Q Mr. MacLeod, whatever
21 the numbers may be in this speculator aspect of your
22 model, you concede that that number must be added to the
23 daily visitor number that exists for all kinds of other
24 reasons?

25 A Yes, but there is some
26 upward limit imposed by the infrastructure also.

1 Q Yes.

2 A There is only
3 accommodation for four hundred people at any given time.
4 That's pretty well the limit.

5 Q And you concede that
6 while there may be some similarities in impact of a
7 speculator -- if I can put it that way -- by comparison
8 with impact of a tourist, there as well are some differences
9 in those impacts?

10 A Yes.

11 Q The profile you draw
12 of a speculator is of a young, single, active, adventurous
13 job seeker. An economic man brought here to look for work?

14 A Yes.

15 Q And that's a little --
16 well, perhaps doesn't strike me as consistent with the
17 profile that I would draw watching the buses come into the
18 Travelodge.

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1 Both groups of people have to eat 3 times a day and both groups of people
2 need some kind of transportation and they also need some
3 kind of accommodation.

4 Q Yes.

5 A To that extent they're
6 similar.

7 Q Yes. The busloads
8 of young, single, active, adventurous job seekers that roll
9 into the Travelodge haven't struck me as overwhelming.

10 In any event, let me get away from the specifics
11 and deal with the fundamental assumption you make that these
12 speculators are economic men, sufficiently economic men,
13 that they will be deterred by an unemployment rate which
14 has a differential of the kind you speak of.

15 A Yes.

16 Q And let me suggest
17 to you that in fact maybe the motivating factor among these
18 speculators is not so much the unemployment rate but the
19 prospect of immense gain caused by the wage rates that may
20 be in existence up here?

21 A Yes, I think I recog-
22 nized that in my evidence.

23 Q Yes, and if that's the
24 case, maybe the best proxy for the labour market is the
25 wage rate rather than the unemployment rate?

26 A As I have pointed out,

1 there will be simultaneous pipeline construction taking place
2 in Northern Alberta and B.C. and I don't think that the wage
3 differential will be substantial.

4 Q I'm simply suggesting
5 that if the predominant motivating characteristic of these
6 speculators is not their economic acumen but rather their
7 search of high-paying jobs, they may be willing to run the
8 risks if the unemployment rate is far beyond twelve percent
9 and therefore may not be deterred by a twelve percent un-
10 employment rate.

11 A Yes, the company,
12 though, has a policy of doing its hiring of outsiders in
13 the South through the hiring halls.

14 Q Would you agree with
15 me, though, that if your assumption about the motivation of
16 these people is incorrect and replaced by an assumption that
17 leads to the search for high wages proposition that I'm
18 putting, the number of speculators may be beyond your est-
19 imate?

20 A But I've just said
21 that I think that the pipeline wages being paid in Northern
22 Alberta and B.C. will be comparable to the wages paid on the
23 Yukon portion.

24 Q At that stage, you'd
25 rely on the existence of high-paying jobs in Alberta rather
26 than the unemployment rate up here to keep speculators away?

1 A Well, I'd also mention
2 that there's a lower unemployment rate in Alberta so the
3 prospects of finding a good-paying job in Alberta will be
4 better than finding one in Yukon.

5 Q Now, lastly, Mr.
6 MacLeod, you say at the very end of your paper that one way
7 of delaing with the multiplier inherent in your model is to
8 recite it as a .18 multiplier applied to your total peak
9 construction work force of twenty-three eleven?

10 A Yes.

11 Q And that would mean
12 that those induced jobs created by the twenty three eleven
13 would be the product of twenty three eleven and .18?

14 A Well, I can't recall
15 the exact calculation because I know that I do some attrib-
16 ute some induced employment to the hundred and thirty-seven
17 O & M positions.

18 Q But in general terms
19 that's the way you'd go about it if we look at the multiplier
20 problem on the basis of the total construction work force?

21 A Yes. I think it's
22 preferable to break the components down.

23 Q Yes, I understand that
24 but because I want a global comparison here, let me begin
25 with that proposition and ask you for your comment on the
26 Alaska situation, whereas we have been told by Mr. Templeton

1 that twenty-three thousand jobs on the Alaska pipeline appear-
2 ed to produce fifty thousand jobs in Alaska, a multiplier of
3 roughly 1.4.

4 A Yes, I've seen many
5 multipliers produced on the Alaskan case and they vary from
6 about .2 to about 10. I've seen some very high numbers in
7 any case.

8 Q I just wonder whether
9 you have any comment to make on what would appear to me to
10 be a very different multiplier in that context than you pre-
11 dict for this context.

12 A Yes, I feel that there
13 was a lot more related employment in the Alaskan case, for
14 example, building that haul road up to Prudhoe Bay.

15 Q Which wouldn't take
16 place here?

17 A That's right, and
18 that would be related employment. If we required a haul
19 road ourselves, it'd be added to the twenty-three eleven.

20 Q Was the haul road
21 building done by the twenty-three thousand? Or do you
22 know that?

23 A I don't know by --

24 Q Okay. Any other
25 major explanations that you could offer for the difference
26 between what I perceive to be the 1.4 multiplier in Alaska

1 taking it globally, and your .18 multiplier?

2 A I think that because
3 people had to be physically present in Alaska if they wanted
4 to obtain any work at all, there was more incentive for
5 people to go there for a longer period of time, and people,
6 whether they're well off financially or not, are still
7 generating demand for goods and services so speculators
8 induce employment also and there was justification for hang-
9 ing around Fairbanks.

10 Q I see. Those two then
11 would be two major explanations you'd offer for that dis-
12 tinction?

13 A Yes.

14 Q I see.

15 A I don't know really
16 which multiplier really is the most valid for Alaska. I've
17 seen several and ...

18 Q Thank you, sir, those
19 are all the questions I have of this panel, Mr. Chairman.

20 MR. CHAIRMAN: Just two questions,
21 one for Mr. Burrell and one for Mr. MacLeod.

22 Mr. Burrell, if I could refer
23 you to page nine of your prepared evidence, this has to do
24 with supply of gas to industrial customers?

25 MR. BURRELL: Yes, sir.

26 MR. CHAIRMAN: And the statement

1 is made there at the end of your answer to question thirteen,
2 that the supply of natural gas to each industrial customer
3 would have to be evaluated on its own merit. Now, the
4 point of clarification arises out of the question and answer
5 that this was, if you have yesterday's transcript in arm's
6 reach, it's on page 3447 ...

7 A I'm sorry, I don't
8 but --

9 MR. CHAIRMAN:-- if not, perhaps I
10 can read it to you, it's very brief, but the point of clar-
11 ification has to do with this. There was some impression
12 that you were distinguishing between industrial users in
13 communities on the pipe, if I can put it that way, as
14 opposed to industrial users elsewhere, and that the individ-
15 ual evaluation on the merits would apply only to those off
16 the pipeline route. If that's not the case, you might want
17 to clarify but this --

18 A I didn't mean to imply
19 that, I meant that industrial customers, and we use, I think
20 the definition of any firm that uses gas in the processing
21 and manufacturing might be considered as an industrial
22 customer, that they would be treated separately because the
23 policy of the company really was to look at lowering the
24 costs of energy for residential and commercial customers,
25 so the industrial customers would be treated as a separate
26 category regardless of where they were located.

1 Q Where they were located.

2 A Yes.

3 Q All right. I think
4 that answers my question. If you are looking at the trans-
5 cript in due course, this is 3447 and 3448 and Mr. Horton
6 as a follow-up question so then in question fourteen your
7 answer to question thirteen you're referring to industrial
8 users that would have their own independent lateral to ser-
9 vice, to service themselves, are you? Answer yes, generally
10 speaking, because we're talking about the large industrial
11 customer which would generally not be located in the commun-
12 ities as we see them.

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1 A Yes, and I was just
2 saying that I didn't think that the large commercial --
3 large industrial customers would be located. That was
4 just an observation on my part. I was thinking more the
5 mines that wouldn't be located --

6 MR. CHAIRMAN: You're not
7 thinking of the situation where an industrial customer might
8 be attracted to a community on the pipeline simply because
9 of the prospect of availability?

10 A I was thinking more
11 I guess, of the situation that exists now when I made that
12 statement.

13 MR. CHAIRMAN: All right, thank
14 you.

15 Mr. MacLeod, I think it's page
16 nine of your -- yes, page nine of your prepared evidence,
17 and this relates to the discussion concerning unemployment
18 rates. This was in response to a question from Mr. Joe.
19 You were discussing the number of Yukoners who would be
20 available to take jobs on the pipeline and the figure of
21 600 Yukoners would -- was mentioned, and then there is a
22 reference to -- this is at page 3463 of the transcript,
23 maximum of about 200 mobile natives who could work on the
24 project. Mr. Joe asked you about the source of that
25 information and you mentioned that you received it from the
26 Territorial Government and in response to a further question

1 said at 3465, I received that figure from the Territorial
2 Employment Officer. I would be curious to know whether
3 that information is contained in a document, or whether this
4 resulted simply out of conversation?

5 MR. MACLEOD:- I obtained that from
6 a conversation.

7 MR. CHAIRMAN: Do you know what --
8 there is reference, and I'm looking back I think Mr. Burrell
9 also spoke briefly to that, this is at page 3463 of the
10 transcript, and refers to an analysis as to the 600 that
11 would accept jobs and so on. Is it your impression, or do
12 you know whether some sort of study conducted by the
13 Government of Yukon that had to do with available Yukoners
14 generally, or available native Yukoners, specifically?

15 A There is one person
16 specifically who is responsible for liaison with the
17 employable people, particularly natives, but he's familiar
18 with the general labour market situation.

19 MR. CHAIRMAN: Is this analysis
20 or a study resulted in a document of some sort?

21 A As far as I know, it
22 has not. But this one person has been on this project for
23 several years. He monitors the situation.

24 MR. CHAIRMAN: Mr. Ellwood, you
25 have something to add to that?

26 MR. ELLWOOD: Perhaps I could

1 help to clarify something here with respect to this 600
2 number. That was generated by consultants to Foothills
3 and reviewing the labour situation in the Yukon Territory,
4 it's quite distinct. That was the number that we, as
5 Foothills, gave to John MacLeod to work with.

6 His information then, helps to
7 break that down as between native and non-native to 200-400
8 then. The 600 number was generated by reviewing the
9 labour force characteristics here. The current unemployment
10 situation as it was at the time we looked at it of course,
11 plus our own requirements to see what might be a reasonable
12 number to -- of local employment that one could either get
13 from a project or that the project could itself handle.

14 We felt that about 600 Yukoners
15 were available. We checked that with the Territorial
16 Employment Liaison Officer with Canada Manpower, and they
17 also felt that was a reasonable estimate so --

18 MR. CHAIRMAN: You were in accord
19 with respect to the 600. It's the 200 figure that I'm
20 rather interested in and wondering if there is some
21 documentation to support it. And if there is, secondly,
22 whether that is available to the Inquiry?

23 MR. MACLEOD: I'll try to find out,
24 but there's no document. This figure came up in a
25 conversation on several occasions in the last couple of
26 months. The idea is that there would be a maximum of 200

Re-Direct

1 mobile natives who could obtain work and it would be a total
2 of about six to seven hundred natives and non-natives in
3 the Yukon who could obtain work.

4 MR. CHAIRMAN: Thank you.

5 Mr. Hollingworth, I neglected to
6 ask you whether you had something in the way of re-examina-
7 tion?

8 MR. HOLLINGWORTH: Thank you, sir.
9 I just have a couple of small points I believe.

10 RE-DIRECT EXAMINATION BY MR. HOLLINGWORTH:

11 MR. HOLLINGWORTH: Mr. MacLeod,
12 yesterday in cross-examination by Mr. Bayly, you were
13 asked about the mining industry turnover. I understand
14 you have some figures at least. Perhaps you could give
15 those to the Inquiry now?

16 MR. MACLEOD: Yes, I mentioned
17 yesterday that a turnover rate for 1976 wouldn't be
18 particularly valid because of the strike situation. I
19 found out that the turnover rate at the Anvil Mine in the
20 first five months of this year to the end of May is about
21 nine per cent. So, if you extrapolate that on an annual
22 basis, I suppose it would be around twenty per cent for
23 the entire year.

24 Q Mr. Bayly is nodding satisfaction
25 with that response.

26 So, Mr. MacLeod, yesterday in a

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MacLeod, Mirosh
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1 discussion with Mr. Joe you were discussing the philosophy
2 of education. There was some reference made there to the
3 romantics, as you classified them, and their attitude to
4 educational philosophy. It wasn't quite clear to me what
5 your answer was and perhaps you could elucidate on that?

6 A Well, there seems to
7 be some feeling that all the in-migrants have a negative
8 impact upon the local community. They come up here with
9 the intention of wrecking the local society. I was trying
10 to convey the idea yesterday that there are people who
11 might come up with, which might have some kind of positive
12 impact, that they might have ideas which coincide with
13 native aspirations with respect to the educational system
14 or the native society in general. I was unaware that the
15 term 'romantic' had some kind of ^{negative} connotation and that's why
16 I used it.

17 Q Mr. Miller, yesterday
18 in reference to your discussion about the Y.W.C.A. you
19 stated that the mortgagor has no use for the building. Now
20 as I understand it, the mortgagor is the borrower, being
21 the 'Y', or the Receiver. Perhaps you could clarify that
22 for us?

23 MR. MILLER: My reference, or my
24 what I was referring to was CMHC, the lender of the money, has
25 no use for -- these legal phrases, it's sometimes difficult
26 to get around them.

1 Q Thank you.

2 MR. HOLLINGWORTH: Those are
3 all my questions.

4 MR. CHAIRMAN: Thank you Mr.
5 Hollingworth. Thank you gentlemen.

6 MR. PHELPS: I just have one
7 question.

8 MR. CHAIRMAN: Oh, sorry.

9 MR. PHELPS: Mr. Burrell, I
10 just have a question for you.

11 On page seven of your evidence
12 you refer to specific communities for whom you would supply
13 the lateral for free.

14 MR. BURRELL: Yes.

15 MR. PHELPS: I was wondering
16 why you supplied just a list. For example, how about
17 Swift River?

18 A These are the ones that
19 we have looked at and concluded that it would be appropriate
20 to provide natural gas, ^{to} under our plan. I must comment that
21 we have not specifically looked at Swift River, but it's
22 quite a small place, as John Ellwood mentions to me, and
23 we felt that these were the major communities along the
24 route and we would include those in our listing.

25

26

Q Is there any reason

A Yes. Perhaps the best

0 Yes it would. Thank

MR. CHAIRMAN: Thank you gentle-

(WITNESSES ASIDE)

MR. HOLLINGWORTH: Mr. Chairman,

MR. CHAIRMAN: Well, perhaps

MR. HOLLINGWORTH: Oh, that

(PROCEEDINGS ADJOURNED).

(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT).

MR. CHAIRMAN: Ladies and

ght come to order now. I'm

1 five o'clock and recommence this evening at 7:30 and that's
2 going to be I understand, at the YWCA at 7:30 this evening.

3 MR. HOLLINGWORTH: We're keeping
4 it out of receivership are we?

5 Mr. Chairman, just before I
6 begin with the next Foothills Panel, this seems to be
7 honour of undertaking days for Foothills and there is another
8 matter that arose on May the 18th, 1977, at which time Mr.
9 Phelps in cross-examination on Pages 1128 and 1129 of Volume
10 Six requested -- and I'll use his words -- "Is there some
11 kind of payment made by a pipeline company for the easement
12 to any of the governments?" The response is that the con-
13 struction estimates include one hundred and seventy-three
14 1976 dollars -- I'm sorry, one hundred and seventy-three
15 thousand 1976 dollars for the purchase of the right-of-way.

16 That equates to approximately
17 thirty-one dollars per acre for the Foothills Pipe Lines
18 (Yukon) Ltd. total mileage of 512.6. We have been advised
19 by officials of the Government of Canada that no decision has
20 been made concerning whether an annual lease fee will be
21 imposed as distinct from a lump sum payment.

22 MR. CHAIRMAN: Thank you Mr.
23 Hollingworth.

24 MR. HOLLINGWORTH: Thank you sir.
25 The next panel is before you sir and consists starting on my
26 left, Mr. John Ellwood, who is by now, familiar to the Board.

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1 Mr. Burrell, who is familiar, and a new face, Mr. Henry
2 Yamuchi, an official of Westcoast Transmission Company Ltd.
3 I believe Mr. Yamuchi has been sworn and perhaps we could
4 go through the evidence starting with Mr. Ellwood and when we
5 come to Mr. Yamuchi, I'll ask him to give us his qualifications
6 at that time.

7 MR. JOHN R. ELLWOOD, Resumed;

8 MR. HENRY YAMUCHI, Sworn;

9 MR. JOHN BURRELL, Resumed.

10 DIRECT EXAMINATION BY MR. HOLLINGWORTH:

11 Q Mr. Ellwood, many
12 people have compared the Foothills-Alaska Highway project
13 to the Alyeska oil pipeline project. Is this a valid com-
14 parison?

15 MR. ELLWOOD: No, there are a
16 number of important differences between these two projects.
17 In our opinion, it would be more correct to compare this
18 project to other Canadian projects, and particularly
19 Canadian pipeline projects.

20 Q Would you elaborate
21 on some of the differences you referred to?

22 A From a socio-economic
23 point of view, the major difference between the Alaska High-
24 way project and the Alyeska oil pipeline project, revolves
25 around employment matters. Particularly, the contractor-
26 union hiring procedures. Nearly all of the workers on the

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1 Alyeska project were hired out of local union halls in
2 Fairbanks. Most of these unions and in particular, the
3 larger unions required their members to be present in the
4 hall when job calls are made. The remainder require their
5 members to be available in a general area, so that they
6 could be contacted when a job call came in.

7 Obviously, these procedures
8 meant that most of the Alyeska work force had to be a resident
9 in the Fairbanks area. This situation contrasts sharply
10 with hiring procedures being put into place for this project,
11 which will enable residents from other parts of Canada to
12 gain employment on the project without leaving their present
13 residence and moving to Yukon.

14 In fact, our procedures provide
15 a powerful incentive for the direct and indirect labour
16 force not to move to Yukon.

17 Q What differences are
18 there between the size of the construction work force on
19 these two projects?

20 A Alyeska employed a
21 peak labour force of about twenty-two thousand four hundred
22 in the summer of 1975 and approximately the same during 1976.
23 As I mentioned before, nearly all were resident in the
24 State. Most were resident in the City of Fairbanks and
25 surrounding area. In contrast to this, the Foothills direct
26 and indirect work force is projected to peak at approximately

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1 two thousand three hundred persons. Most of these will not
2 be resident in Yukon.

3 The reasons for the much higher
4 work force on the Alyeska project were partly due to
5 differences in the construction plan. The Alyeska pipeline
6 was a little over eight hundred miles long, compared to
7 five hundred and twelve miles for the Yukon section of the
8 Alaska Highway project. In order to construct the line,
9 Alyeska established seven pipeline camps, all of which were
10 active at the same time and all of which were active for
11 nearly two years.

12 Foothills on the other hand,
13 will have seven pipeline camps, only two of which will be
14 active at the same time and the longest active period for
15 any of the camps will be approximately five months. The
16 Alyeska pipeline required twelve pump stations, all of which
17 were being constructed during the period the pipeline was
18 being built.

19 The Foothills system requires
20 only seven compressor stations in Yukon and of these, only
21 three will be built during the time the pipeline is under
22 construction. The remaining four will be built during the
23 first year the line is operating. In addition, the Alyeska
24 project required the construction of a haul road from
25 Fairbanks to Prudhoe Bay. I believe that should read from
26 Yukon River North to Prudhoe Bay, a gravel pad along the

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1 entire length of the pipeline and a tanker terminal at the
2 Port of Valdez. No comparable projects are required in
3 Yukon or anywhere else as a result of the Alaska Highway
4 project.

5 Q In previous testimony,
6 you have mentioned that work on this project will also be
7 going on in other parts of Canada. Would you elaborate on
8 that please?

9 A The Canadian section
10 of the Alaska Highway pipeline project is two thousand and
11 twenty-two miles long. One thousand five hundred and ten
12 miles of this or seventy-five per cent will be built outside
13 of Yukon. During the summer of 1980 which is peak con-
14 struction season in Yukon, sixty-nine per cent of the man-
15 power employed on the construction of the overall project,
16 will be working in British Columbia, Alberta and Saskatchewan.
17 In contrast to this, a hundred
18 per cent of the pipeline facilities built by Alyeska were
19 located within the State of Alaska.

20 Q Were there any
21 differences in the logistics plans for the projects which
22 are important in assessing socio-economic impact?
23
24
25
26

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1 The ALYESKA logistics plan
2 centred around the rail head and staging site at Fairbanks.
3 Although some of the material for the project was taken
4 directly to Prudhoe Bay and some was moved by ocean to the
5 then
6 ports on the South coast and/by truck to the right-of-way,
7 the bulk of the material passed through Fairbanks. This
8 focus on Fairbanks was a contributing factor to some of the
9 impacts on that area. The logistics plan for the Alaska
10 Highway project calls for two major staging or materials
11 transfer sites, and one smaller site. Both of the major
12 sites are located outside of Yukon. The first at the rail
13 head in Fort Nelson and the second at the Port of Haines,
14 Alaska. The smaller staging site will be located at the rail
15 head here in Whitehorse. The effect of this plan will be to
16 diffuse the logistics activity and thus its impact over a
17 larger area, rather than the concentrate it on one particu-
18 lar node in the transportation network.

18 Q Are there any other
19 differences between these two projects which you wish to
20 point out?

21 A There are several
22 other points, although they're minor in comparison to the
23 ones already mentioned, are significant in comparison of
24 these two projects and their impacts.

25 The first point is that ALYESKA
26 required all of construction work force to take a pre-employ-

1 ment physical examination. The Fairbanks Impact Information
2 Centre report number twenty-two dated May 19, 1976, reported
3 that between May 1 of 1975 and April 30th of 1976, the
4 ALYESKA medical program had conducted twenty-eight thousand,
5 seven hundred and fifty-one physical examinations in the
6 State, all of them through contracts with local clinics in
7 Fairbanks and Anchorage. Any pre-employment medicals re-
8 quired for the construction work force in the Alaska Highway
9 project will be done at the point of hire, thus, the major-
10 ity of the work force will be given such physical examina-
11 tions prior to their arrival in Yukon, will not create a
12 burden on local medical services.

13 The second point that I wish to
14 note here is that the pipeline sector of the ALYESKA work
15 force worked a longer season than is planned for the Yukon.
16 In order to accommodate this longer season, ALYESKA worked
17 out a work-rest cycle, which was generally nine weeks on
18 the job and two weeks of rest and recreation. These R
19 and R cycles, we're staggered for individual employees or
20 crews, resulting in a more or less continuous flow of per-
21 sonnel through the hiring centres. This flow was in addi-
22 tion to the normal labour turnover. The majority of the
23 work force in our project will be working relatively short
24 seasons, each crew on the pipeline operation will be on the
25 job for approximately three months, will then be laid off
26 and returned to the point of hire.

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1 The last point that I would like
2 to mention here concerns the information program which Mr.
3 Burrell testified to earlier. The program that he described
4 is considerably more comprehensive than what was undertaken
5 in the Lower Forty-eight as a result of ALYESKA.
6 In addition, our program will commence a full year and a
7 half before the large-scale hiring for the project commences.
8 Thus, there is every reason to believe that this program will
9 be successful in reducing in-migration to Yukon.

10 Q Thank you, Mr. Ellwood.

11 Mr. Yamuchi, I stated that you
12 were an official of Westcoast Transmission Company Limited.
13 Perhaps you might state what your position is and give us
14 some idea of your work experience.

15 MR. YAMUCHI: Well, I'm Henry
16 Yamuchi. I'm employed by Westcoast Transmission, head-
17 quartering in Vancouver, British Columbia. I've been employ-
18 ed by Westcoast Transmission for the past twenty years in
19 various capacities. For the first eight years, I was the
20 Supervisor of Operations and Maintenance and also a Senior
21 Inspector on Pipeline Construction. The following eight
22 years I was Senior Supervisor of Construction, then in the
23 last four years I've been working in the Engineering Depart-
24 ment, working on designs of pipelines, costs estimatings,
25 material specifications and in charge of Pipe Mill Quality
26 Control, and I also look after the matters of/welding metallurgy and

welding engineering. Within the past year I testified before the Federal Power Commission in Washington, D.C., in the matter of the forty-two inch Alcan and I also testified before the National Energy Board in Ottawa on the matter of this forty-eight inch Alaska project.

Q Thank you sir. Excuse me. I understand you're going to discuss the thirty-inch Fort Nelson pipeline but before you do, you've mounted a map on the wall behind you, I take it that that is a map of the Westcoast system in Northern British Columbia and perhaps you could show us the particular area that, where the pipeline construction was undertaken and perhaps you could confirm, I believe it to be the case, the bright orange line is the proposed Alaska Highway pipeline continuing down through British Columbia.

A Yes, that's true, sir. They've -- I purposely brought this back to be able to show the Westcoast system and how the Westcoast system, the main line, do run very near and parallel the Alaska Highway, perhaps in somewhat a similar nature as the proposed forty-eight inch does from Fairbanks through to Watson Lake. Just hand the material overhere because I won't be able to reach the top. (laughter) I believe I'm going to have to.

This is the sixtieth parallel, the pink line. The line that I would particularly like to talk about is our thirty-inch line, which is located parallel-

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1 ling the Alaska Highway here, with this being our pipeline.
2 The pipeline starts approximately fifteen miles south of
3 the Fort Nelson plant, namely, Mile Post 285 on the Alaska
4 Highway. From here it travels two hundred and twenty point
5 five miles south and it intersects Highway 97 at a little
6 place called Willow Flats, which is approximately thirty
7 miles outside of Chetwynd, which is approximately sixty
8 miles from Dawson Creek, or Fort St. John, just for the
9 benefit of people who don't know where Chetwynd is.

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1 We have also got a system that
2 travels north of Fort Nelson which goes almost due north,
3 cuts across the sixtieth parallel, and there is about 11.8
4 miles of it probably through the southeast corner of Yukon
5 and approximately fifteen miles into Northwest Territories
6 heading towards Fisherman's Lake.

7 Q Thank you, Mr. Yamuchi.
8 If you would just read your evidence in please?

9 A The pipeline was built
10 by two separate pipeline contractors; one being responsible
11 for the northern section from milepost 0.0 to pipeline
12 milepost 110.0, and the other being responsible for the
13 southern section from milepost 110.0 to pipeline milepost
14 220.5.

15 The pipeline was constructed
16 employing normal pipeline practices. The pipeline route
17 was cleared, graded, ditched, and pipe welded, layed
18 in ditch, backfilled, the right-of-way and access roads
19 cleaned up and the pipeline tested.

20 Each construction section employed
21 approximately six hundred men, made of approximately five
22 hundred contract personnel and about one hundred service
23 personnel employed in catering, engineering, and inspection
24 and such like. Now, at this time, I would just like to add
25 a statement in there, saying that the labour force was
26 drawn from the four major unions, i.e. International

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1 Brotherhood of Teamsters, Chauffers, Warehousemen and Helpers
2 of America; (2) the International Union of Operating
3 Engineerings; (3) Labourers International Union of North
4 American; and (4) the United Association of Journeymen and
5 Apprentices of Plumbing and Pipefitting Industry of United
6 States and Canada, which represents a labour force of the
7 Yukon and Northwest Territories and all Canadian provinces.
8 Employing the normal pipeline practice, all the hiring
9 was done through the above union halls in Vancouver or any
10 other Provincial union hall throughout Canada, whenever
11 Vancouver was not able to supply the personnel. Therefore,
12 there was never a mass in-migration of men at any one town
13 or settlement where the pipeline contractor had set up
14 their field office.

15 The top seventy miles of the
16 pipeline was constructed during the winter of January and
17 February and March of '65, taking advantage of the frost
18 conditions as most of the year the terrain is wet and muskeg
19 conditions prevail. Soil tests were conducted throughout
20 this area in 1963 and the summer of 1964 to determine the
21 amount of weighting required to produce negative buoyancy
22 on a pipeline installed.

23 Discontinuous permafrost is
24 encountered in few places, in shallow lenses, measuring not
25 greater than three hundred feet in length. In most cases
26 they were dug out so the pipe rested in a non-frozen material.

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1 In isolated cases where the lense were thicker, such as
2 eight or ten feet, pipe was buoyed to zero buoyancy. Moisture
3 in these areas was found to be very low.

4 Inspection after construction
5 showed minimal subsidence. However, the seventy mile
6 stretch had intermittent sections of muskeg and was laced
7 with sloughs and small pools of water. About five miles of
8 the seventy mile section was hilly, and of course, no
9 muskeg was encountered. The remainder of the pipeline
10 from milepost 70.0 to 220.5, approximately 150.5 miles was
11 constructed during summer, autumn, and early winter, August
12 through to November of 1964.

13 Unlike the first seventy miles
14 this terrain was quite hilly for the most part, although
15 there were occasional wet areas and shallow muskeg which
16 required corduroy rip-rap. A substantial amount of shale
17 and light rock was encountered between milepost 70 and
18 milepost 85.

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1 More hard rock was found
2 primarily around milepost 75 to 108 and 130 to 133, and
3 137 to 139, 194 to 196, and 199 to 205, and 210 to 213.
4 Farm and ranch land were, of course, relatively flat and
5 they existed near Half Way River, between milepost 155 to
6 167 and south of Station N-5, milepost 175 to 190. The
7 construction personnel worked out of camps and settlements.
8 Camp were of size to accommodate five hundred men, including
9 some married quarters, and were set up along the Alaska
10 Highway at milepost -- these are Alaska Highway mileposts,
11 222, 175 and 95, in towns of Fort Nelson, Fort St. John,
12 Chetwynd, Hudson Hope. Construction personnel lodged in
13 hotels and motels and dined in local restaurants and cafes.
14 Approximately twenty per cent of the personnel -- there's
15 a couple of words missing in there -- approximately twenty
16 per cent of the personnel of southern sections lived in
17 mobile trailers in local trailer courts.

18 Construction camps were within
19 a fifty mile radius of the following small communities along
20 the Alaska Highway: Prophet River, Trutch, Sikanni, Mason
21 Creek, Pink Mountain, Won-o-Won. These settlements are highway
22 stops consisting of motels, cafes, service stations, general
23 and souvenir stores. In 1964 the population^{of} the towns was
24 approximately; Fort Nelson - 1200; Fort St. John - 5,000;
25 Chetwynd - 1100; Hudson Hope - 1500. The economy of the
26 aforementioned communities, towns and settlements were

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1 greatly improved because of extra business generated by
2 the influx of construction personnel. Many of the local
3 people found employment in the pipeline industry -- in the
4 pipeline, particularly in unskilled and semi-skilled positions.
5 Equipment such as dozers, backhoe's, trucks, autos, et
6 cetera were rented from local concerns whenever possible
7 and the correct type of machinery was available.

8 Pipeline construction did not
9 appear to increase the cost of services for the goods in
10 the communities, towns and settlements along the way. With
11 the influx of several hundred people, the incidents of
12 minor disturbances did increase slightly. However, these
13 were minimal as senior representatives of both contractor
14 and owner were able to control very effectively any situation
15 which arose. Several regular employees of the inspection
16 staff of Westcoast Transmission would frequently contact
17 local residents and business people to discuss the behavior
18 of the construction personnel, and any problems which may
19 have been created with the advent of pipeline construction.
20 Their reply did not indicate that construction personnel
21 were creating any problems of serious consequence.

22 As previously stated, any
23 isolated instant of trouble were handled quickly and
24 effectively by senior supervision. Pipeline contractors
25 performed many favours for local people, such as clearing
26 of small plots of land, cutting of ditch lines, placing of

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1 culverts, doing mechanical work and electrical generators,
2 vehicles, et cetera, and in general tried to be good
3 corporate citizens.

4 Upon visiting these communities,
5 towns and settlements, when construction was completed as
6 found through discussion, the pipeline construction had been
7 a great asset and not a liability.

8 Many more miles of pipeline had
9 been laid throughout B.C. and I am confident that if there
10 had been any significant problems or adverse social impacts,
11 they would have been brought to our attention since
12 Westcoast maintains a continued presence in this area.
13 Pipeline construction had benefitted local residents and
14 trades people. This has been confirmed by the Mayors of
15 both Fort Nelson and Fort St. John when they presented
16 evidence to this Inquiry at the Watson Lake Community Hearing.

17 Q Thank you Mr. Yamuchi.

18 MR. HOLLINGWORTH: Sir, that
19 completes the evidence of this panel and is available for
20 cross-examination.

21 MR. CHAIRMAN: Thank you Mr.
22 Pritchard.

23 MR. PRITCHARD: Do you think, Mr.
24 Chairman it might be wise to stop at this point at ten to
25 five and to reconvene at seven?

26 MR. CHAIRMAN: All right, that's

1 a good idea. We can adjourn now. I think though that our
2 start-up time is seven thirty, is that correct Miss Hutchinson?
3 Yes. Seven-thirty at the Y.W.C.A.

4 MR. PRITCHARD: Perhaps Mr.
5 Chairman, I could say a couple of things. My name is
6 Pritchard. This is Mr. McDonald sitting beside me. As
7 some of your know, Mr. Goudge has had to leave. He will
8 be replaced by Mr. Roland hopefully some time tomorrow
9 coming out from Toronto. In the meantime I will do my
10 best to replace Mr. Goudge.

11 The schedule for this evening
12 is the cross-examination of the panel now before you. That
13 will be followed by Dr. Richard Morlan for the CYI. He
14 will be speaking on archaeological concerns arising from
15 the proposed pipeline. That evidence has been and is
16 available at the Inquiry offices. The evening will be
17 completed with Foothills again with Ms. Liz Scout on
18 native hire. We reconvene at seven-thirty at the 'Y', not
19 here.

20 If you have any difficulties
21 please speak to me.

22 MR. CHAIRMAN: We now stand
23 adjourned until seven-thirty.

24 (PROCEEDINGS ADJOURNED)

25

26

343.093 Alaska Highway
A47F58 Pipeline Inquiry
Vol. 31

AUTHOR

Lysyk Inquiry: Vol. 31

TITLE

June 28, 1977 Whitehorse, Y.T.

DATE DUE

BORROWER'S NAME

343.093
A47F58
Vol. 31

CAI
IA 800
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v. 32

GOVT PUBNS

ALASKA HIGHWAY PIPELINE INQUIRY

IN THE MATTER OF AN APPLICATION BY FOOTHILLS PIPE
LINES (YUKON) LIMITED TO THE MINISTER OF INDIAN AFFAIRS
AND NORTHERN DEVELOPMENT FOR A GRANT OF THOSE
INTERESTS IN THOSE AREAS OF TERRITORIAL LANDS IN THE
YUKON TERRITORY AS MAY BE NECESSARY FOR THE CONSTRUC-
TION AND OPERATION OF THE SAID NATURAL GAS PIPELINE
AND THE WORKS AND FACILITIES CONNECTED THEREWITH AND
INCIDENTAL THERETO,

AND

IN THE MATTER OF A BOARD OF INQUIRY ON THE SOCIO-
ECONOMIC ASPECTS OF AN ALASKA HIGHWAY GAS PIPELINE.

BEFORE THE BOARD:

K.M. LYSYK, Esq., Q.C.	CHAIRMAN
WILLARD PHELPS, Esq.	MEMBER
MRS. EDITH BOHMER	MEMBER

P R O C E E D I N G S

VOLUME 32

WHITEHORSE, Y. T.

JUNE 28TH, 1977

EVENING SESSION

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APPENDICES

Stephen Goudge, Esq. R. Prichard, Esq. Ian Poland, Esq.	Commission Counsel
A. Hollingworth, Esq. R. Gibbs, Esq. R. Hudson, Esq. R. Mackie, Esq.	Appearing for Foothills Pipe Lines (Yukon) Ltd.
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G. Ellis, Esq.	Appearing for Yukon Trans- portation Association
D. Morrison, Esq.	Appearing for Yukon Territorial Chamber of Commerce
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Sid Horton, Esq. Al Wright, Esq.	Appearing for the Yukon Territorial Government
Hector McKenzie, Esq. Rob McCandless, Esq. John Bayly, Esq.	Appearing for the Yukon Conservation Society
Carson Templeton, Esq.	Alaska Highway Pipeline Panel
Ms McPherson	Yukon Association of Social Workers

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Cr Ex by Joe

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1 Whitehorse, Yukon Territory

2 June 28th, 1977

3 EVENING SESSION

4 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

5 MR. CHAIRMAN: Ladies and
6 gentlemen, I wonder, have we attached a name to this panel?
7 Have we attached a name to this panel, incidentally, Mr.
8 Hollingworth? Have we attached a label or a name to this
9 panel? We're dealing with comparable situations, I guess.

10 MR. HOLLINGWORTH: That's right.

11 MR. CHAIRMAN: Other pipeline
12 projects. And I understand Mr. Bayly that you once again
13 lead the batting order?

14 MR. BAYLY: I think I need about
15 fifteen seconds here, Mr. Chairman.

16 MR. HOLLINGWORTH: For your
17 questions?

18 MR. BAYLY: No, I need about
19 fifteen seconds to get organized here. If you wish to start
20 with somebody else, or if anybody wants to go ahead --

21 MR. CHAIRMAN: Next on the list,
22 I understand, is Mr. Joe. Would you like to go forward, Mr.
23 Joe?

24 MR. JOE: Sure.

25 CROSS-EXAMINATION BY MR. JOE:

26 MR. JOE: Mr. Yamuchi, a couple

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1 of questions to you. When you were following the Alaska
2 Highway or pinpointing the routing of the thirty inch line,
3 does it follow the Alaska Highway precisely?

4 MR. YAMUCHI: I imagine you are
5 talking about our thirty inch main line that travels from
6 Fort Nelson to Willow Flats?

7 Q That's correct.

8 A That follows the Alaska
9 Highway from milepost 285 on the Alaska Highway, which is
10 about fifteen miles south of Fort Nelson -- just give me
11 a minute to think. It's about ten miles away from the
12 highway at Trutch, which is approximately milepost 200, and
13 that's right, yes. That's right. It intercepts the Alaska
14 Highway at milepost 142, which we call approximately Pink
15 Mountain. From there the Alaska Highway swings east to
16 Fort St. John, but we continue straight south to intercept
17 highway 97, about thirty miles southwest of Chetwynd.
18 Therefore, for a hundred and ten miles -- approximately
19 one hundred and ten miles it's hugging the highway, then
20 around milepost 95 on the Alaska Highway, we are about
21 I would say about twenty miles off the Alaska Highway.

22 Q And you would be twenty
23 miles off the Alaska Highway until you intersect it at
24 highway 97, is that correct?

25 A Would you please repeat
26 your question please?

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1 Q The twenty mile distance
2 that the pipeline is from the Alaska Highway, would that
3 twenty miles -- would that remain constant from the time you
4 diverge from the Alaska Highway until the time you intersect
5 with highway 97?

6 A No, it increases for
7 the simple reason that the Alaska Highway would go towards
8 east towards Fort St. John and we would go straight south
9 to Willow Flats. And Alaska Highway milepost zero is
10 Dawson Creek, and we would be approximately sixty -- will be
11 about ninety miles from Alaska Highway. But then from
12 milepost 285 on the Alaska Highway to milepost 95 on the
13 Alaska Highway, we are very close to the Alaska Highway.

14 Q I see, and the distance
15 at times when you state you are twenty miles from the Alaska
16 Highway, what type of access roads would you have for the
17 construction spread?

18 A We were required to
19 build access roads in from, I'm just trying to think now,
20 in from Prophet River, which is approximately milepost 222
21 on Alaska Highway, we built an access road in from 200 on
22 Alaska Highway which is Trutch, and we built an access road
23 in from milepost about 175 on Alaska Highway, which we would
24 refer to as Mason Creek Lodge, into the pipeline. Like I say,
25 that's milepost 142 on the Alaska Highway, it does intercept
26 the Alaska Highway and we can get our pipeline from the

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1 Alaska Highway on the Half Way River road, which is about
2 milepost 95 on the Alaska Highway, or from Won-o-won on the
3 Alaska Highway.

4 Q And those would be all
5 the access roads that you would require for the building of
6 that pipeline. Is that correct?

7 A I would say that these
8 were the primary access roads. Yes, these are the primary
9 access roads. Excuse me, I missed one out there, we have
10 got access into the pipeline from milepost 135 on the
11 Alaska Highway to get onto our pipeline.

12 Q And would the men
13 constructing these access roads, would they be included in
14 the approximately six hundred that you stated for the
15 two camps in the northern section, as well as in the
16 southern section?

17 A I'm sorry, sir, I missed
18 the first part of your question?

19 Q Would the men who
20 constructed these access roads, would they be included in
21 the overall employment required for the construction of
22 that pipeline?

23 A Yes, they would be
24 included in it. The construction roads are primarily trails
25 that existed from previous and with our construction we
26 improve these trails to the point that whereby that we are able

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1 to get a diesel driven, or gasoline driven vehicle through.

2
3 Now, you also mentioned that the
4 hiring policy used for the construction of that pipeline
5 was primarily a hiring policy in which you obtained your
6 manpower from hiring halls which were contained in southern
7 centres in B.C.?

8 A On this particular
9 project, and in projects that we have conducted in British
10 Columbia, prior to this project, the hiring practices were
11 just a little more lenient than what they were at the
12 present.

13 The primary -- of course, the
14 supervisory people came from the contractors main location
15 of the headquarters. But then the skilled personnel would
16 come out from the regular union halls. But when it came
17 down to the labouring type and the semi-skilled, they were
18 hired more from the local people and also from the people
19 who had presented themselves in front of the contractors
20 field office which we would refer to as warehouse. In the
21 morning before you kick the pipeline off, you would see a
22 congregation of approximately thirty, fifty people waiting
23 to get hired on. The foreman would take a look and he would
24 see, that, he would recognize some people or would ask the
25 inspection staff or such like, and they would hire the labour
26 and the semi-skilled from the group.

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1 Now, also in it, the contractors
2 did try to hire many of the so-called local people for the
3 simple reason that the more local people that you hire, you
4 just create a better environment and when you're going to
5 a number on the payroll, whether it's a labourer from a local
6 resident, or whether it's a labourer from Vancouver, they
7 would perform equally as well once they get out on the
8 pipeline.

9 Q I see. So then, for
10 that project Westcoast Transmission employed a hiring
11 policy in which the skilled labour was hired in the hiring
12 halls, in the union halls, in the south, and at times they
13 hired the local people right on the spot?

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1 A Yes, that is true. I
2 wouldn't say that this was a Westcoast policy. It's
3 dictated by way of the union, that the welders and the
4 operators and the teamsters definitely come out of the union
5 hall. Once the union hall is depleted, then they are able
6 to hire anybody, but when it came down to the labourer and
7 the semi-skilled, the contractors would prefer to hire
8 somebody from the local residents. Once again to repeat
9 myself, so that they would be just in a better light with
10 that settlement or with that community that they're in.

11 Q Where would most of
12 these skilled labourers be hired in the union halls. In
13 what cities would they be hired in?

14 A On our project, because
15 we're British Columbian, the primary hiring of the skilled
16 personnel came from Vancouver. The majority of them came
17 from Vancouver, although a few of them would have come out
18 of Edmonton.

19 Q I see, so then you're
20 saying that Westcoast at the point of hire, at the time of
21 construction, did not have a specific policy for hire of
22 southerners in southern union halls, is that correct?

23 A I wonder if you can
24 repeat that again please?

25 Q Did Westcoast have a
26 specific hiring policy to hire southerners only in southern

Cr Ex by Joe

1 hiring halls like in Vancouver?

2 A No, Westcoast did not
3 have that policy as such. Once again, I say that the pipe-
4 line contractors hire the personnel.

5 Q And the pipeline con-
6 tractors I take it, have their union halls in Vancouver?

7 A That is correct.

8 Q Now for the people who
9 are hired locally, those thirty who would congregate out-
10 side of the warehouse on a daily basis, do you know or does
11 anyone else know whether or not any of those people would
12 consist of what this Inquiry has termed in-migrant?

13 A Just bear with me for
14 half a moment. I just want to think. I'm just trying to
15 think of my past experience now. Not speaking specifically
16 of this project, I have worked on many projects for West-
17 coast in British Columbia throughout the entire province of
18 British Columbia.

19 I have helped lay in excess of
20 fifteen hundred miles of pipeline with the company. Now,
21 in Fort St. John, I know specifically well myself, we were
22 laying an oil line from Taylor Flats into Kamloops and the
23 year before, we were putting in some lines north of Fort
24 St. John. Specifically, I had noticed that this one
25 particular year, that we had some native people on the pay-
26 roll and he had performed exceptionally well. When we were

1 laying this oil line, I spotted the same person in the
2 group and I mentioned to one of the pipeline foremen, I said
3 there's a fellow that you should get because I saw him
4 perform last year and he's a good man.

5 Now, he was a local person and
6 like you ask me, what percentage may have been in-migrant,
7 I really don't know what percentage were in-migrants, but I
8 do know that -- because I have been within that neighbourhood
9 of Fort St. John and Fort Nelson so many times, that I do
10 get to know many people. Out of that, there were a, I would
11 say, a reasonable percentage that would have been local
12 people because I had recognized them. But just because I
13 didn't recognize them, it doesn't mean that they were out-
14 siders or that they weren't local.

15 Q So there is a possibility
16 that there were some in-migrants in those who would show up
17 at the warehouse to get jobs?

18 A Oh yes, definitely
19 that there would be. The law of average says that there is
20 bound to be, because whenever a pipeline project comes along
21 or there is a forecast of a pipeline project, the word gets
22 around, so therefore, they would congregate. But these
23 congregations would take place not for everyday of the week
24 to the end of the job. These congregations take place
25 primarily immediately prior to the kick-off and during
26 kick-off. They wouldn't last much longer than one week after

1 the kick-off for the simple reason that one week after the
2 kick-off, every crew, every foreman, has already crewed up
3 his crew and he would not require further personnel.

4 The way they do it up in the
5 pipeline, as you probably know, the process of construction
6 is clearing first and they would get up ahead of the grading
7 by so many thousand feet and the grading would continue.
8 The grading operation would go ahead perhaps maybe by
9 fifteen -- well, depending on the terrain, they could be as
10 far ahead as fifteen miles ahead of the pipelaying crew and
11 they would all come in stages.

12 Once when the public finds out
13 that all the crews have been manned, which would be in a
14 matter of a week or ten days, you don't see the crowd around
15 the warehouse any longer. The reason why I say this here
16 is that I am only speaking from my own personal experience.
17 Like I said, I did assist the company in laying in excess
18 of fifteen hundred miles of pipeline in the Province of
19 British Columbia.

20 Q Now Mr. Ellwood, if I
21 can turn to you to help by clarifying the role of unions in
22 this whole pipeline employment matter. In your evidence,
23 you state that the major difference between the Alaska
24 Highway project and the Alyeska oil pipeline project,
25 revolves around employment matters. Particularly, the
26 contractors union hiring policy.

1 Now, as I understand it, your
2 company is not privy to the negotiations which go on between
3 the contractor and the unions, is that correct?

4 MR. ELLWOOD: That's true, yes.

5 Q Is there any possibility
6 of those major four unions which were given in the evidence
7 of Mr. Yamuchi this afternoon, if those four major unions
8 made a specific demand to have a hiring hall in the Yukon
9 and if in fact, would your company be in any position to
10 increment your policy position as stated in respect to
11 southern hiring halls?

12 A I suppose that unions
13 are free to organize a local, a union local or try to
14 organize a union local wherever they can recruit membership.
15 There are specific rules for incorporating a union local
16 under the laws of the country, so I would assume that they
17 can do that. The location of hiring halls is really not a
18 point of negotiation, as far as I understand it.

19 The unions have their hiring
20 halls where they have them because that's where the workers
21 are and they're there to serve the membership of their union.

22 Q I see, so in fact,
23 there was a substantial membership from any of the four
24 major unions who work on pipelines in the Yukon. Then in
25 fact, there could be a possibility of pressure being put
26 on by the unions to establish a union hall in Whitehorse.

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1 A I don't foresee that
2 as any sort of realistic possibility at all because of the
3 short term nature of the job. My information from the unions are
4 that
5 they are recognizing that that is not to their best advantage
6 because they don't see any long term need for the pipeline
7 worker.

8 I think you can see evidence of
9 that in Fort Nelson, where although pipeline work is going
10 on, the hiring hall is in Vancouver rather than Fort
11 Nelson.

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1 You were talking about
2 setting up a Union Hall in Whitehorse. What did you exact-
3 ly mean?

4 Q Well, I was suggesting
5 that there is a possibility of Foothills having difficulty
6 with maintaining their policy of Southern Union Halls if
7 in fact the Union demanded a Union hiring hall in the
8 Yukon somewhere

9 A One little point that I would like to
10 bring up over here, sir, is that Yukon and North West
11 Territories are a -- do belong to these major, four major
12 craft unions and these craft unions do have a contract with
13 the Pipeline Contractors Association. Therefore anything
14 that comes under Yukon Territories or North West Terri-
15 tories would still come under the Pipeline Contractors'
16 Associations and the Union's international organizations
17 agreements, so it could conceivably be that you do have a
18 -- but I don't know whether you have a union hall in
19 Whitehorse or not, but the Yukon territory is definitely
20 specifically stated in the contract as a -- say, for
21 example, there's an International Brotherhood of whatever
22 it is in the Province of Alberta, Province of Saskatchewan,
23 and such like, and there is of Yukon and of Northwest
24 Territories. One of the things it says in the agreement
25 of the Yukon territories or anywhere north of the sixtieth
26 parallel that there are conditions in there which are,
shall we say, a little more rewarding than a condition that

1 you would be working in the Province of Alberta or Sask-
2 atchewan or in Alberta. That Yukon territory is recognized
3 and do have a local as such.

4 MR. BURRELL: Mr. Joe, I just
5 wanted to mention that we've had discussions with the
6 Canadian Pipeline Advisory Council representatives and
7 they've indicated to us that they would be having, keeping
8 their Union hiring halls in the South. This group did
9 appear before the Berger Inquiry in Yellowknife, I think it
10 was a year ago last summer, and expressed the concern that
11 they had with the problems of an influx of a large number
12 of people, and so on, and as I recall, they had made a
13 commitment at that time that the Union hiring halls would
14 remain in the South.

15 Q Well, my concerns are
16 twofold: one, the difficulty that Foothills may have in
17 terms of maintaining that policy position of having South-
18 ern hiring halls and the other difficulty would pertain to,
19 or the other concern would pertain primarily to a Yukoner
20 who is a member of, let's say, Operating Engineers, -- how
21 would Foothills overcome that obstacle of a Yukoner who
22 belongs to a Union who wishes to work on the pipeline and
23 if, in fact, if all of the Southern hiring is done in the
24 South with, as you said, with the exception of those
25 Yukoners who will probably get on in the semi-skilled areas
26 in Whitehorse, is there a distinction between those six

1 hundred Yukoners who would potentially get jobs on the
2 pipeline and those Yukoners who are unionized and who have
3 union halls in the South?

4 A Well, we've said that
5 Yukoners will be hired in the Yukon and that's where
6 they're union members or not. You were asking the question,
7 are we privy to the negotiations between the union and the
8 contractors. I think on the negotiation of wage rates
9 and so on, that's true, but in a project that we're looking
10 at here, we would have a project agreement or a special
11 arrangement which would be set up specially for this part-
12 icular project. As we see it working that any particular
13 policies that we have that we would want incorporated into
14 a special agreement or a project agreement, we would be
15 giving to the contractors and they would be negotiating
16 on our behalf with the unions, as we see it, but they would
17 have to, in negotiating this agreement, would have to satis-
18 fy the policies that we have set down. As far as, as I
19 said before, as far as the wage negotiations are concerned,
20 we wouldn't get involved with that, but certainly we would
21 be involved through the contractors to establish and build
22 into these agreements the policies that we have set forward
23 for our project, plus any terms and conditions which would
24 be imposed upon us through the permit.

25 Q So then I take it,
26 there is no possibility of establishing a union hall in the

1 A No possibility. I
2 guess anything's possible but it's very unlikely and from
3 our standpoint the policy positions which we have establish-
4 ed and, as I said, the terms and conditions which are plac-
5 ed on this project in the permit, would have to be abided
6 by.

7 MR. YAMUCHI: Mr. Joe, this
8 is only a personal opinion but I just don't see at this
9 point where we can say as to whether there will be or there
10 will not be a union hall in Whitehorse. If, and whenever
11 this program is kicked off, when the program is being
12 carried out in the Province of Saskatchewan and in Alberta,
13 and in the Province of British Columbia, I believe that
14 you will see that the amount of skilled labour that we
15 would be required, that we would require on the entire pro-
16 ject, that you'll see that perhaps that the Albertans will
17 want to work near home and that Albertans will want to work
18 on the Alberta project and British Columbians would like to
19 work on the British Columbia project. Then you'll find
20 that the Yukoners that they will probably want to work near
21 home and that they would work on the Yukon project because
22 I don't think that you will probably see too much competi-
23 tion of an Albertan trying to enroll for a seat of a Yukon-
24 er seat in Yukon or a person in Saskatchewan coming into
25 Yukon. I just can't see a man from Regina wanting to come
26 out, way out in the Yukon to work when he's got his wife and

1 kids living at home. Because this entire program is so
2 massive and it's not just a case of where you're laying a
3 five hundred mile project in Yukon alone and there's no work
4 going on anywhere else. There's an equal amount of work
5 going on in the Province of British Columbia. We'll have
6 a minimum of 438.5 miles of same size pipeline going on in
7 British Columbia, and then we'll have a fairly good sized
8 program of thirty-six inch going on in the southeastern
9 corner of British Columbia also, that I believe that we
10 ourselves will probably be able to, to reduce the employ-
11 ment, the want of employment figure out of Vancouver from
12 our own program. I believe down in Alberta it'll be much
13 the same thing.

14 MR. HOLLINGWORTH: Mr. Joe, as
15 I understand it, the Pipeline Advisory Council may very
16 well appear before the Inquiry, perhaps that question is
17 more appropriately put to them.

18 Q Very well, I'll -- on
19 page three of your prepared evidence, Mr. Yamuchi, you
20 state "that pipeline construction did not appear to increase
21 the cost of services or the goods in the communities, towns
22 and settlements along the way." Can I ask if I, that's your
23 personal opinion or whether, in fact, studies have been
24 carried out by Westcoast Transmission or by any other in-
25 dependent research group?

26 A Sir, personally I didn't

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1 conduct an investigation on this program as such, but then
2 we have been in operation in this area, say, for example,
3 in Chetwynd and in Fort St. John, ever since 1957. We have
4 permanent regular employee personnel living in these areas,
5 which I know of personally, and just through a matter of
6 conversation I would say to them, did you find a rise in
7 price or such like, and the house wife would either answer,
8 yes or no. Also, more than that, I personally lived in
9 these areas for many months prior to the main kickoff of
10 the program for the simple reason that in the early 1964,
11 like say 1963, I was around Fort Nelson, during a muskeg
12 survey to be able to calculate the amount of weighting
13 required so, and we have stayed in Fort Nelson for a
14 fairly length of time. I also stayed in the City, town
15 of Fort St. John for a lengthy rate of time. I wasn't
16 waiting, I was working on other projects, but stayed
17 around in those areas long enough to be able to see as to
18 whether the commodities have violently increased in price.
19 I have stayed in Chetwynd for a good number of months, all
20 spring and summer of 1964, running a school of microline
21 welding for the new welders coming up, and also, and taking
22 note of the prices of the food products and the few little
23 sundry pieces that I would buy. The reason I would know
24 the prices of the food for the simple reason that I didn't
25 like eating in a cafe and I would be batching and I'd be
26 going up to the grocery stores and I'd be buying my own

Ellwood, Burrell
Yamuchi
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1 corn flakes and pork chops and whatever it may be and I
2 didn't see a substantial increase in price from the time,
3 from the spring of the year to the summer and fall of that
4 year when the main group of the contracting personnel came
5 in.
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Ellwood, Burrell
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1 MR. BURRELL: Could I just add just
2 one quick thing? I think what Mr. Yamuchi is saying was sup-
3 ported by what the mayor of Fort Nelson said when he appeared
4 before this Inquiry at Watson Lake. He said that, as I re-
5 call, that there had been no noticeable effect on inflation
6 in the Fort Nelson area as a result of activities occurring
7 in the area.

8 Q Aside from those two personal
9 observations, you don't know of any concrete studies
10 which have been carried out in to cost projections in that
11 area, do you?

12 MR. YAMUCHI: No, there were no con-
13 crete studies done on it, but then I think that by asking our
14 own personnel who have been there ever since 1957, would have
15 been perhaps as good or even perhaps better than a study we
16 would have got by sending a consultant over there on a two
17 month basis.

18 Q I see. Mr. Yamuchi, are you
19 acquainted with the Slavey the Indian Band in Fort Nelson?

20 A Well, I would say reasonably
21 well because I know a few of their chiefs. I know the old
22 Chief Harold Dickie and the present Chief, George Behn,
23 because I've personally worked with George Behn, or rather
24 he had worked for me a couple of years ago.

25 Q Do you know if the construction
26 project which you are speaking of, would you know the numbers

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Yamuchi
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1 of native people from northeastern B.C., or from the Fort
2 Nelson area who would be employed in that particular project?

3 A I'm sorry, sir, I couldn't
4 give you the exact number, but I do know that the, that there
5 was a fair representation of - from them, that was working on
6 that project or some other project.

7 I'll deviate from the subject some-
8 what and say, for example, ^{on}our Pointed Mountain Project, in
9 January and March of 1972, it wasn't the Slavey group, but
10 then approximately ^{ten percent} of our working personnel, the contracting
11 personnel they come from areas of Fort Liard, Fort Simpson
12 and areas.

13 And also, while I'm on the same sub-
14 ject, I'd like to bring this up is that the same Slavey
15 people, we have approached the Chief, more than one time, of
16 taking on permanent employment with Westcoast Transmission
17 because we've got a tremendous apprenticeship program going
18 on, whereby they're put on the regular payroll and they're
19 given their schooling and they're given education and also
20 work on the job to be able to better themselves. Excuse me,
21 I don't -- not to better themselves, but to be able to ele-
22 vate themselves to any height that they would like to. Now
23 then we would get some response and they would -- some would
24 stay longer and some would quit sooner, because they appear
25 like as if they would prefer some seasonal or work of a part
26 time basis, because they've got some other interest involved.

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1 They have worked for us in numerous occasions on the contract
2 basis. We have asked the people like George Behn, has been
3 an inspector on more than one project for us. He has been
4 a supervisor on more than one project for us. We have asked
5 him if he would like to be in our permanent staff and he had
6 thanked us and he said that that would be very nice, but then
7 that he has got some other commitments. I can see -- I
8 can see their point that, rather than to work for a perman-
9 ently for people like Westcoast that perhaps it might be more
10 interesting for them to be working on the gridding program,
11 where they're working seasonally and other parts of the
12 season, but they can do whatever they may wish to do, whether
13 it's fishing or hunting or whatever they are, they're likes
14 are.

15 Q So I take it then at that
16 point of time, Westcoast Transmission did not have a definite
17 native employment policy, but presently they do have, or they
18 are co-sponsoring a policy which is termed Nortran with
19 Alberta Gas Trunk. Is that correct?

20 A Westcoast Transmission, as
21 such, at this present time, do not have a definite policy
22 stating that we will hire native people or that we will train
23 native people. We treat native people in the same light as
24 we treat any other people. If we were to give preference to
25 one, then we would get negative response from the other.
26 But still at the same time, I would like to bring to your

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1 attention that we do make personal efforts and we do speak
2 to people like George Behn, the Chief of the Band there and
3 saying that employment opportunities are there, if your peo-
4 ple wish it.

5 Now, within our own system, we have
6 hired and trained them and they had elevated themselves up
7 through the ranks and have made themselves into pipeline journey-
8 men and welders and such like .

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Yamauchi
Cr Ex by Joe

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1 Q I take it there are
2 gas wells and pipeline construction which has occurred on
3 land which is reserved for the use of the Slavey Indian Band
4 in the Fort Nelson area. Is that correct?

5 A I believe so. From the
6 top of my mind, I'm just thinking about Quintana , I
7 may be wrong, but then I believe that there are some gas
8 wells on the reserve.

9 Q Do you know if there
10 have been any recent financial return to the Slavey Indians
11 in respect to those gas wells if they have been developed.

12 A Perhaps if you read the
13 same articles I have, I believe that there was a reasonable
14 monetary return on it.

15 Q And are you acquainted
16 with the leases that they would-first of all, do they work
17 out those leases with Westcoast Transmission?

18 A No, they would be working
19 out those leases with the producers.

20 Q I see. And the
21 monetary return would come from whom?

22 A From the producers.

23 Q And the producers are --
24 are whom?

25 A The structure in the --
26 the gas structure -- the petroleum structure in British

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Yamauchi
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1 Columbia at the present, ever since 1972, has been as follows:
2 that in 1972 with the change in government, the government
3 set up a corporation called "The British Columbia Petroleum
4 Corporation" which do the buying and selling of the natural
5 gas. We are the transporters. We are nothing but the railway
6 or nothing but a trucking firm that moves from the gas
7 from point 'a' to point 'b'.

8 So therefore, all the royalties,
9 or whatever it might be, from the wells in British Columbia
10 and supposing if they were on the reserves or any other
11 place, that they are handled through British Columbia
12 Petroleum Corporation.

13 Q And there is also a
14 treaty in the Fort Nelson area. In other words, they do have
15 their land claims settlement, but it's designated as a
16 treaty in that area. Is that correct?

17 A You've got me there. I
18 couldn't answer that, because I don't know.

19 Q Would Mr. Ellwood or
20 Mr. Burrell be acquainted with that area?

21 MR. ELLWOOD: I'm not sure of
22 where the boundaries are of the treaty in that area, so --
23 I know it's in the general area, but I couldn't say just
24 where the boundaries are, so I would rather not respond
25 unless I see a map of that.

26 Q Now, Mr. Ellwood, if I

1 could get back to you and question three of your evidence,
2 that with the peak labour force of Alyeska, which is 23,400
3 men, and the Foothills peak manpower, which is 2,311 men.
4 Now, what I would like to know is has Foothills carried out
5 any in-depth research into the amount, should there exist
6 any, in the area of native employment of the Alyeska project?

7 A No. We haven't carried
8 out any in-depth discussion in that regard, although I have
9 had some discussion with Alyeska people regarding minority
10 hire in Alaska, which is -- minority hire over there is
11 rather broader than native people. It encompasses all
12 minorities in the States.

13 Q And could you determine
14 whether or not the native people, the Indian and the Eskimo
15 and the Aluits of Alaska, were they successful in getting
16 employment on the Alyeska pipeline?

17 A I would have to go back
18 to my notes from that meeting to see what numbers I took down.
19 The impression I was left with after talking to the Alyeska
20 officials were that they had exceeded their original target
21 for the number of native peoples that they had agreed to hire
22 out of the quota arrangement that they had there, they had
23 exceeded that target at the time that I talked with them.
24 But I can't recall the specific numbers now.

25 Q And as I understand it,
26 prior to the construction of the Alyeska oil line, the native

1 people in Alaska settled their land claims. Is that correct?

2 A Yes, the Alaska land
3 claims settlement Act, or Native Claims Settlement Act was
4 passed before the construction began.

5 Q In your estimation, Mr.
6 Ellwood, would this factor be positive or negative when it
7 comes to native employment on the Alyeska oil pipeline?

8 A I think it was probably
9 a positive factor in all sorts of things, including the
10 employment situation.

11 Q So, in a sense then, that
12 the land settlement which preceded the construction of the
13 Alyeska oil line in fact provided sufficient financial,
14 economical and political clout in order that the native
15 people of Alaska could get a share of the profits from the
16 Alyeska oil line. Would that be correct to say?

17 MR. GIBBS: That's a fairly
18 leading question, sir.

19 MR. MARSHALL: He can lead on
20 cross-examination.

21 MR. GIBBS: He can lead, but he
22 can't really start off by implying that the only reason
23 that they could get jobs was because they made a settlement.
24 He can ask that question, but he can't lead the way he did
25 in my submission.

26 MR. CHAIRMAN: I think he's

1 inviting the members of the panel, or one of them to agree
2 or disagree with the proposition.

3 MR. ELLWOOD: Well in response
4 to your earlier question, Mr. Joe, I said that I felt that
5 such a settlement of the land claims was a helpful factor
6 in contributing to employment on the Alyeska. The native --
7 as I recall the situation there now, the Alaska Federation
8 of Natives has negotiated a contract with Alyeska to provide
9 native people -- native labour and supply the same to the
10 project.

11 In terms of what effect the
12 settlement might have on the financial situation of the
13 native organizations in supplying that labour, I don't think
14 that would be too relevant because they had a contract and
15 the money was forthcoming to do that from Alyeska. They
16 were under contract, they weren't using the funds from the
17 Settlement Act to do that.

18 Q Are you acquainted with
19 any large contracts which may have been given the native
20 people of Alaska in relation to the construction of the
21 Alyeska oil line?

22 A I'm not familiar with any
23 contracts. I know that there were several joint ventures and
24 there was a contract for camp security as I recall, on the
25 section north of Yukon. But I'm not familiar with the
26 details of the contract or anything like that, just I know

1 of its existence.

2 Q But you would agree that
3 the native people who in fact bid on these contracts were
4 able to do so because of the assistance which they got from
5 the land claims settlement, which they had prior to the
6 construction?

7 A I don't know whether
8 that's true or not. I don't know if they were in that
9 position before or after the land claims settlement. I
10 just know that the contract was there.

11 I was -- in my response I was
12 trying to separate contracts from labour.

13 Q One last question. You
14 spoke of the nine weeks on and the two off that they had
15 in the construction of the Alyeska pipeline and you compared
16 it to the Foothills project in which they will have three
17 months on and then off. You stated that the length would
18 be longer than the Alyeska project.

19 Do you know the length of the
20 season for construction in the Alyeska project?

21 A Well, they started
22 hiring up for the project towards the end of the first
23 quarter of the year, or early in the second quarter. Parts
24 of the project -- parts of the pipe, the actual work on the
25 pipeline as distinct from pumping stations, roads and other
26 matters like that, part of that work did go on around the

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1 year, although it was greatly scaled down during the winter
2 months. So, their lay-off period, if you will, came then in
3 the fall, late fall, early winter, and then up again the
4 following late winter or early spring.

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Q I see. Mr. Chairman, I certainly hope that that takes up the fifteen seconds Mr. Bayly required to prepare himself for cross-examination.

MR. CHAIRMAN: Thank you, Mr. Joe.

Mr. Bayly?

CROSS EXAMINATION BY MR. BAYLY

MR. BAYLY: Thank you, Mr. Joe, I think I'm ready.

Could I start with you, please, Mr. Yamauchi? Could you tell me, sir, do you live in Fort Nelson yourself?

MR. YAMAUCHI: No, I do not. I live in Vancouver, British Columbia, but then I have spent an extensive number of time in Fort Nelson. My wife often has wondered as to whether I live in Fort Nelson or Fort St. John.

Q I see. Your work then takes you extensively to Fort Nelson, does it?

A Sometimes more than extensively.

Q I hesitate to ask what more than extensively could possibly be, but you do spend a lot of time there?

A Yes, I do spend a lot of time just and I'll give you an example about the number, the amount of time I do spend down there. Now say, for example, in 1963, when they first were doing my initial survey on this particu-

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1 lar line as I was speaking about. I spent approximately three
2 months between winter and spring break-up over there, just
3 continuously and then I went back there just at the start of
4 the winter, when we were beginning to start work on the Fort
5 Nelson line and also putting in a gathering system for the
6 Clark Lake and I didn't even get a chance to get home to go
7 ahead and to get a new suit of summer clothes, that I was
8 required to stay out there to be able to conduct more work.
9 Then from there, I was required to go down to Chetwynd and
10 I was shuttled back to Fort Nelson again the same year. Now,
11 so in 1963 and '64, I spent most of my time in Fort Nelson.

12 Then came 1966, we weren't on con-
13 struction program, but somehow I inherited a whole bunch of
14 work down at the Fort Nelson plant. It's one of these things
15 with the pipeline firm, because we're laterally narrow, but
16 lineally we're long, so wherever there work is that we're
17 required to go and all the work happens to be away from home,
18 then that's where we have to go.

19 Q Would it be fair to say that
20 you spend several months a year in Fort Nelson?

21 A I don't think that would be
22 fair to say, because I spend more than a few months a year
23 in Fort Nelson.

24 Q All right, would you spend
25 half the year there?

26 A I would say so. You can check

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up at Shannon Motel to see how long I stayed there.

Q So you're acquainted with the community and I take it you're acquainted with the mayor of the community, Mayor Schuck?

A I don't - he wouldn't recognize me in a crowd, but I can recognize him in a crowd.

Q And you've read the evidence, I take it, that he gave that you referred to in your own presentation?

A Yes, I saw some parts of it.

Q All right, and I take it that you agree with his main recommendation in that he endorses the Alaska Highway route of Foothills as an appropriate route for bringing the natural gas from Alaska?

A Yes.

Q Now, he makes some other observations and I'm going to go through some of those with you and, as a person who's acquainted with Fort Nelson, I will invite you to agree or disagree with those. Do you agree with him when he says that Fort Nelson only experienced rapid economic growth in the early '60's with the discovery and development of petroleum products, especially natural gas? That's at page two, two, six nine of the transcript. Is that how it started, is that how the economic development of Fort Nelson began with natural gas and oil?

A I would certainly say that

1 the, with exploration and with the finding of the natural
2 gas and with the subsequent program of up-building a treat-
3 ment plant and pipeline, it did help the community of Fort
4 Nelson.

5 Q And, as I understand in the
6 late 50's, the population of the community was only approxi-
7 mately 300 but has since grown to over 4,000. Is that your,
8 would you be able to agree with that?

9 A I wouldn't know about the late
10 50's, but I do know that ever since about 1964 to about now,
11 in 1964 the population was in the neighbourhood about twelve
12 hundred and if he says that it was four thousand right now,
13 I believe that is probably -- I would say that that is
14 awfully close, because we ourselves have put up a mass of -
15 we did a massive housing and the condominium program in
16 Fort Nelson.

17 Q When you say "we", you're
18 referring to....?

19 A I mean Westcoast Transmission,
20 yes.

21 Q And that was for the men who
22 were working in the plant, was it?

23 A Yes, on plant and pipeline.

24 Q Does that belong to the com-
25 pany or does that belong to the individuals who live in the
26 dwellings?

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1 A Both.

2 Q A combination, is it?

3 A Right.

4 Q Now, he makes the observation
5 that -- Page 2270 of the transcript, that Fort Nelson exists
6 as it now does largely as a result of the gas industry.
7 Would you agree that it had that extensive an influence on
8 the community?

9 A I'd say that the discovery of
10 gas had a tremendous influence on Fort Nelson to what it is
11 at the present, because I'm just thinking about what ^{/other} industry
12 has Fort Nelson got beside the gas industries? They have
13 a fairly good sized logging industry going on there at this
14 present time by name of Tackama. The B.C. railway has moved
15 in there and because that is a terminal that they, I imagine
16 that they got a fairly good, a fairly large staff. Those
17 are about the three things I can just mention and I do agree
18 with Mayor Schuck that the gas, because the gas did help
19 Fort Nelson.

20 Q He states as well, and your
21 answer anticipates my next question. At Page 2271 of the
22 transcript, that it was, in fact, the forest industry that
23 made the community more stable and less transient than it
24 had been when it existed largely because of the gas and
25 oil industry. Would you agree with that?

26 A Yes, I agree with that for

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1 simple reason is that in the gas industry, you must appreci-
2 ate that there is exploration involved in it and the pipeline
3 involved in it and the pipeline and the plant construction
4 involved in it. So much of this here are a boom time work
5 that is here today and gone tomorrow. What's left behind
6 is the operations and maintenance and I believe a firm like
7 Tackama, for example, may have a larger payroll then we do
8 in Fort Nelson.

9 Q He makes that observation,
10 that the oil and gas industry is only labour intensive while
11 facilities are being constructed, not while they're being
12 operated.

13 A Yes, that's true.

14 Q He goes on to say on Page
15 2272, that even now in both Fort Nelson and Fort St. John,
16 there are seasonal influxes of people related to the oil and
17 gas industry, particularly in the winter time. He says ^{there} that
18 if you arrive there in either of these communities in the
19 winter you may discover that you have trouble obtaining
20 accommodation and that are no cars to rent. Is that an ob-
21 servation ^{that} you share?

22 A In Fort Nelson, this is par-
23 ticularly true and for this and because of its topographical
24 conditions this is true. Most of the Fort Nelson area is
25 in a flat plain of, I would say, muskeg and wet areas,
26 whereby access is made only when the foundation below is solid

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1 mainly frozen, so therefore, in the wintertime you do find
2 more work and more employable people around than perhaps in
3 summertime.

4 Q Now the mayor says that the
5 community has learned to cope with the seasonal influx and
6 has, in fact, come to rely on that influx from year to year.
7 Would you be able to agree with that?

8 A Yes, I agree with that.

9 Q Now, he goes on to say at
10 Page 2278 of the transcript, that his plea that the pipeline
11 be built along the alignment that Foothills has made applica-
12 tion for is made in conjunction with a request and hope that
13 there must be some tangible long-term benefit for the North
14 and he feels that in some cases that hasn't been the case in
15 the past. Would you be able to agree with that?

16 A Would you run that by me again,
17 please? I've got to be given the time to digest it.

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Q Now, I'll read from
line twelve of Page 2278. I'll read a couple of paragraphs
of what he says and I'll invite you to agree or disagree
with what he says.

"Now, while there is widespread support, let me
say that there is also a very strong feeling
that there must be some tangible long term
benefits for the North. There has been a
history in this northeastern portion of British
Columbia of economic development which has been
based on the short term only. If you drive
along the Alaska Highway and travel through the
northeastern portion of British Columbia, you
will, in fact, discover communities that are most
unattractive. You will find communities that
provide probably the fewest municipal services
in the province.

If you've lived there as I have, I have
lived in Fort St. John for three years, I've
lived in Fort Nelson for almost six years,
you'll discover that people come and go. It is
very difficult to form friendships on a long
term basis and that people move in beside you
and then stay a year, they stay two years and
they leave.

That is the simple fact of the development

1 which is based on the short term."

2 And he goes on to say,

3 "The type of development we have is in the extrac-
4 tive industries."

5 Would you agree that the
6 extractive industries are short term in the benefits that
7 they provide to the communities or would you disagree with
8 that?

9 MR. BURRELL: Wasn't he referr-
10 ing to the service companies that are in the area and the
11 fact that they would put up offices that were strictly
12 trailers and really didn't have any permanency about them,
13 isn't that what he was referring to?

14 Q That's part of it, but
15 he goes on to say, Mr. Burrell, and you may recall this as
16 well,

17 "A capital investment in which the purpose is to
18 extract a resource and ship it to the South.
19 The few plants that have been constructed have
20 been located outside of the municipalities and
21 therefore do not pay and have not paid taxes
22 directly to the municipalities and yet the
23 municipalities have been called upon, of course,
24 to provide the services for their particular
25 employees."

26 So I think he's also referring

1 to the extractive industries of which your company is one.

2 MR. YAMAUCHI: Speaking
3 specifically of Fort Nelson and of Westcoast Transmission,
4 during the height of the construction, perhaps that there is
5 definitely a greatest exchange of money from the owning
6 company which is Westcoast and on to the contractor and to
7 the people who supply material. You know, in way of steel
8 and such like.

9 That is the greatest dollar
10 expended but at the same time though, when the greatest
11 number of people were over there, that these people perhaps
12 did tax the ordinance of the city or perhaps maybe the
13 medical services of the city or settlement such like. But
14 I believe the remains of it, mainly like the Westcoast will
15 remain behind and operate an operations and maintenance
16 crew and operate a plant.

17 Perhaps that the dollars that
18 they leave isn't as -- not that they leave, but the dollars
19 that are exchanged are definitely not as great as the
20 dollars that exchanged between the contractor and the owning
21 company at that time, but on a long term basis. I believe
22 that the firms like Westcoast do leave by way of taxes and
23 by way of support of the local industry. That the amount
24 that they leave in a long term basis is definitely beneficial
25 to the community rather than saying, for example, that the
26 amount the people previous to them - namely the contracting

1 personnel, have taken out.

2 Q So you think that the
3 net is a benefit rather than a --

4 A Well, I would say that
5 on a long term basis, that it is. That when we set up a
6 housing area or office area or such like, it isn't a
7 twenty-five cent shack that is an eyesore, that when we put
8 a place, that we would try to put up a place that - becoming
9 to the community, they eventually -- the community calls it
10 shall we say, snob hill.

11 I mean we're not going to show
12 anybody up, but we're just trying to help the community.
13 We're just trying to become a real good corporate citizen.

14 Q I understand that and
15 the difference that we might draw from what you have just
16 said between the project as it may affect the Yukon and the
17 development of the gas and oil industry in the northeastern
18 part of British Columbia, is that in the Fort Nelson area,
19 we're not just looking at pipelines that you have pointed
20 out this afternoon on the map, but we're also looking at
21 the extraction of the fuel and the processing of it in the
22 area. Those are the parts of the industry which I under-
23 stand you were saying particularly, confer benefits on the
24 communities around them.

25 Would you agree with me there?

26 That's the long term benefit that you're referring to I

~~Yarwood~~

Cr Ex by Bayly

1 take it. Let me take it step by step if you're having
2 trouble

3 In the northeast part of British
4 Columbia, that is in the Fort St. John and the Fort Nelson
5 general area, seventy-five per cent of the natural gas
6 produced in the Province of British Columbia is found. Is
7 that correct?

8 A Yes, that is true.

9 Q And millions of barrels
10 of oil are also produced. At one point, they peaked at
11 something like twenty-five million barrels and they are
12 now diminishing to somewhere around twenty or twenty-one
13 million barrels. Would that be fair to say?

14 A I don't know the
15 figures, but the point that I would agree to, that it is
16 increasing.

17 Q Yes and in that area
18 is the largest gas processing plant in North America?

19 A Yes, that's true.

20 Q And what I'm saying is
21 that it's very difficult to look at the pipeline in the
22 northeast part of British Columbia in isolation from the
23 rest of the gas and oil industry which carries on its
24 extraction and processing work there? The pipeline is
25 built very quickly.

26 A Yes.

1 Q What continues to
2 confer the long term benefit that you have described as
3 those facilities which are located close to the communities
4 and have their personnel live in the communities or
5 adjacent to them?

6 A Yes, that's true.
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1 Q The concern that Mayor Schuck may have been expressing
2 with regard purely to the construction of a pipeline and
3 the committee does acknowledge that the thirty or forty
4 households and families in Fort Nelson have been a boon
5 to the municipal tax base, et cetera, but that the benefits
6 derived from the actual construction of the pipeline are
7 transitory and may not be a net benefit to the community.

8 A I don't see where, I
9 don't quite agree where it's not a net benefit to the
10 community, but I think that anytime that you add people to
11 the community, I don't see where they are not a benefit to
12 the community unless they are, shall we say, just a drone
13 in the community.

14 Q Let me put it this
15 way, then, Mr. Yamauchi. As I understand, the community of
16 Fort Nelson badly required sewage and water treatment,
17 sorry, water treatment and supply facilities and sewage
18 treatment facilities as a result of the growth which was
19 partly generated by the oil and gas industry. Would you
20 agree with me there? Mr. Mayor Schuck refers to that
21 in his evidence given at Watson Lake. Mr. Burrell, do you
22 recall that?

23 MR. BURRELL: I was searching
24 for it earlier -- when you earlier said that he had --

25 Q Page 2280 of the
26 transcript.

1 A I don't have copy of
2 that, sir. You were saying that he felt that the construc-
3 tion phase was the better part of -- I've forgotten what
4 your words were exactly but you had implied that he had
5 said that the construction was by far the best and the
6 O & M was secondary, is that what you --

7 Q No, I'm saying it the
8 opposite way around, that the long-term benefits that are
9 conferred by the Operations & Maintenance may benefit the
10 community more than the short term benefit of the pipeline.
11 He says, at page 2283, and I invite you to either agree or
12 disagree with this: "The history of Northern economic
13 development has been that of extraction. It has been that
14 of intense, short term capital investment, of a short term
15 influx of people which have little opportunity and few
16 benefits for the people of the North." That's something
17 that I invite you either to agree or disagree with.

18 MR. YAMAUCHI: Let's go back
19 a step and return to the subject that apparently that Mayor
20 Schuck had brought up something about that because of the
21 added growth in Fort Nelson, that because of this here, that
22 they're lacking sewage or something like this --

23 Q That's right, now,
24 they've just got a DREE Grant, a DREE grant from the
25 Federal Government, as I understand, to build a facility
26 for sewer and water that's going to cost six million dollars.

1 According to a report, which I'll file a copy of, called
2 The Northeast Report, 1975, produced by the Minister of
3 Economic Development for the Province of British Columbia,
4 they badly required that facility and they weren't in a
5 position to pay for it. That was as a result of expansion
6 not something that the gas and oil industry had tried to do,
7 I suggest to you, but just as a result of their increasing
8 the size of the community.

9 A Well, this is a point
10 I was trying to get out of you and I just want to get that
11 point clear in my mind. Fort Nelson, like any other
12 community, is bound to grow. Now, because of, perhaps, the
13 oil industry, because of the gas industry, they may have
14 grown, shall we say, just a little bit faster than if the
15 gas industry wasn't there. The gas industry was probably
16 one of the contributing factors to the need of the sewerage
17 system but also still at the same time though, by way of
18 taxation, whether it's in Vancouver or whether it's in
19 Edmonton, by way of taxation from these people, from the
20 firms, would they not be contributing toward the community
21 or toward the village or the town?

22 Q Well, as I understand
23 from Mayor Schuck and you may disagree with this, facilities
24 he says are very seldom located within the municipality
25 and it's certainly the case in Fort Nelson that they're
26 outside it, and the facilities do not form part of the tax

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1 base of the community. As a result of that and as a result
2 of the growth, as I understand, the community was not in a
3 position to pay for the facilities that it required as a
4 result of expansion. Now, the information contained in the
5 Chamber of Commerce publication called "Fort Nelson on the
6 Alaska Highway", another document that I'll file for the
7 Inquiry, suggests that the population of the community was
8 approximately three hundred until 1958 and that as a result
9 of oil and gas discoveries the community grew rather dramat-
10 ically, in twenty years it has grown from around three
11 hundred to what you confirmed as a population of four
12 thousand.

13 A I'm sort of lost over
14 here because while ^{ago} I thought that you had mentioned that
15 the forest industry was more of a contributing factor to the
16 Town of Fort Nelson than the people who are allied to the
17 gas industry, now you mention that because of the gas in-
18 dustry, because of the gas industry expansion that they
19 require the sewerage -- I'm sort of out of step over here,
20 I wonder if you wouldn't mind clearing me up.

21 Q Well, as I understand,
22 the forest industry exploitation began in the seventies.
23 The oil and gas work and exploration and development began
24 in the late fifties and continued through the sixties and
25 is continuing to this day. You'd be in a position to agree
26 with that?

1 A Now that part, I do
2 agree, yes.

3 Q And it has caused the
4 town to grow and to become at least in part what it is to-
5 day. You've agreed with that earlier?

6 A Yes, I agree with that.

7 Q And that has something
8 to do with the size of the town, too, because - -

9 A That is true.

10 Q -- and --

11 A But we can't say at
12 the same time, though, that because, because of gas industry,
13 let's put it the other way, because of the expansion through
14 the gas industry and because of the B.C. Railway and because
15 of the forest industry and just because of the nature, that
16 any kind of a town will grow because of time, that expan-
17 sion is caused from this here, rather than saying because
18 of gas industry because a while ago we said that gas in-
19 dustry is one of the leading industries in Fort Nelson,
20 although it is part of it.

21 Q So what you're saying
22 is that the gas industry is part of the development of --

23 A Oh yes, definitely the
24 gas industry is part of the development, there's no getting
25 away from it, and we're proud that it is part of the
26 development.

1 Q And -- but if there
2 are costs involved in development, you want everybody who's
3 developing to share those.

4 A Oh yes, and we will
5 share along with it.

6 Q And to share the
7 responsibility for them?

8 A Definitely.

9 Q Right.

10 Now, I understand from Mayor
11 Schuck's evidence that despite being in the centre of the
12 biggest gas-producing area in the Province of British
13 Columbia that until recently, and this is on page 2282 of
14 the transcript, until recently that part of the province
15 paid the highest gas rates in the province. Would you be
16 able to agree with that?

17 A Well, I'm not qualified
18 to answer that question but I can certainly give
19 you an answer for that, though. (laughter) I'm not
20 qualified to give an answer for that right now but I will
21 get you an answer.

22 Q Oh, I see, I under-
23 stand, I'm sorry.

24 A I'm sorry, I didn't
25 say it correctly.

26 MR. HOLLINGWORTH: Did you mean

1 gasoline for automobiles or---

2 MR. BAYLY: Natural gas. I'll
3 read you the portion of the transcript starting at line
4 nine of page 2282 of the transcript of that hearing.

5 "People concern themselves with energy cost.

6 Fort Nelson, for fifteen years, from 1960 until
7 1975 or 74, despite the fact that seventy percent
8 of the gas produced in the province, the natural
9 gas came from our area, paid the highest natural
10 gas cost in British Columbia.

11 The highest in British Columbia. We had a rate
12 hearing, after fifteen years it was reduced to
13 some extent and yet four months ago Pacific Pet-
14 roleums and B.C. Hydro got together and raised the
15 cost sixty-seven percent in one year."

16 And it goes on from there. So he is referring to the
17 natural gas prices. And you said, Mr. Yamauchi, that you
18 could supply me with those figures.

19 A Yes, I could.

20 Q Fine, I'd be grateful.

21 A Not right now but --

22 Q I understand.

23 One of the things that Mayor
24 Schuck recommended, as the mayor of a community that has
25 experienced various kinds of development, at page 2284 of
26 the transcript, was that any additional cost to the municip-

1 alities or to the regional government as the result of the
2 pipeline should be borne by the applicant. Is that some-
3 thing you would agree with or disagree with?

4 A How was that again,
5 please?

6 Q He said that any
7 additional cost to the municipalities or to the regional
8 government as a result of the pipeline should be borne by
9 the applicant.

10 A He means contribution
11 in dollars and cents?

12 Q Well, he goes on to
13 say this by way of explanation, perhaps this will help you.

14 "If we are going to have a large influx of trucks
15 and equipment on streets, the streets are going to
16 deteriorate at a more rapid rate and that ought to
17 be considered. If municipal services are going to
18 be used and because of the strain on those services,
19 and there will be a strain, we can cope, but there
20 will be a strain, then the shortened life of those
21 services ought to be compensated for by the applic-
22 ant."

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1 A Do we not pay taxes
2 -- road tax on gasoline. Do we not -- you know, supposing
3 it was on a temporary basis, do we not contribute toward
4 the motels and restaurants such like, who in turn are
5 responsible for those things? They wouldn't be setting
6 up motels with fifteen rooms or twenty rooms or hundred
7 and twenty rooms, whatever they are, if they weren't
8 expecting people to occupy it. Say, for example, whether
9 it's us or any other travellers on the highway, although
10 we may not perhaps contribute in a direct dollars and
11 cents, are we not contributing to them indirectly, par-
12 ticularly during the construction phase and once we get
13 into the operation and maintenance phase?

14 I know for a fact that West-
15 coast has contributed towards the city in many many ways.
16 It doesn't have to be in dollars and cents, but in a
17 material fashion.

18 Q I take it those are
19 rhetorical questions which can be reduced to the company
20 pays taxes and by doing that, it pays its share. It does
21 other things besides, of a non-monetary nature to help
22 the community?

23 A Yes.

24 Q And that's what you
25 mean by being a good corporate citizen?

26 A That's right.

1 Q One of the concerns
2 expressed at Page 2287 of the transcript by Mayor Schuck,
3 is that although there may be a few jobs, a few local
4 suppliers do very well, the merchants do very well for a
5 short period of time, maybe a year or maybe two years and
6 then as so often happens, they move south with the money
7 that they've earned and the old problems remain and the
8 old problems always go unresolved in the North.

9 Now, he refers to problems
10 there and I'd like to take you through a list of problems
11 that are raised in the Northeast Report, with particular
12 reference to Fort Nelson and invite you to agree or dis-
13 agree that those are continuing problems in those
14 communities.

15 If you wish Mr. Commissioner,
16 to take a break, I'm about to change feet.

17 MR. CHAIRMAN: Is it a con-
18 venient time, certainly. Let's break for about ten
19 minutes.

20 (PROCEEDINGS ADJOURNED).
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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT).

MR. CHAIRMAN: Ladies

gentlemen, I wonder if we might recommence now, whenever you're ready.

MR. BAYLY: Thank you Mr.

Chairman.

CROSS-EXAMINATION BY MR. BAYLY: (Continued)

Q Mr. Yamauchi, where

we left off was at Page 2287 with the comment by Mayor Schuck that although people come and go and money is made and some of it is taken South, and I'm paraphrasing here, the old problems remain and the old problems always go unresolved in the North.

I told you I was going to go through some of the problems that are raised in a report which I filed called 'The Northeast Report '75' put out by the Government of British Columbia, the Department of Economic Development.

Let me ask you first, is it a report with which you are acquainted?

MR. YAMAUCHI: I am not acquainted with it at the time.

Q Then I'll take you through the individual observations of the report writers and invite you from your observations and experience in the Fort Nelson, either to agree or disagree with those obser-

1 vations.

2 MR. GIBBS: Mr. Commissioner,
3 perhaps a copy of the report should be put in front of the
4 witnesses. It's rather unfair to ask them to comment on
5 something he doesn't know and he's never seen.

6 MR. BAYLY: Yes, I have no
7 objection to that. I have provided a spare copy because I
8 anticipated there would be that request.

9 Now, one of the problems that
10 is raised is found on Page 14 of this report and it's
11 labelled psychological problems. Under that heading, the
12 following is stated:

13 "Isolated regions generally exhibit a higher
14 rate of mental illness among their populations
15 than do less isolated communities. Mental
16 illness is more prevalent amongst women than
17 men in the northeast. A recurrent set of under-
18 lying values appears to explain many cases.
19 Since much of the economy of the northeast is
20 based on bush centred employment, males are
21 away from the community for long periods while
22 the women remain behind, responsible for children
23 and the home."

24 It goes on to say that the men
25 spend their first couple of days in the bar, building up
26 resentment in the women. Would you be able to confirm that

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1 there is a problem of a psychological nature among the
2 people in Fort Nelson and the Fort Nelson area that you've
3 observed?

4 MR. GIBBS: Well Mr.
5 Commissioner, that's perfectly unfair. What my friend has
6 quoted is a clause numbered three on Page 14 and there is a
7 lot in this report prefacing that clause.

8 Surely, the witness is entitled
9 to read the material that precedes it. In order to
10 respond properly --

11 MR. BAYLY: We can do a
12 number of things, Mr. Chairman. I gather this is an
13 objection to this question.

14 MR. GIBBS: No, it's an
15 objection to the process sir. If my friend wanted my
16 witnesses to comment, he should surely have given us this
17 report yesterday and it's just not fair to present a report
18 to a witness, select an isolated clause on Page 14, quote it
19 and it may have earlier explanations dealing with the subject
20 matter and say do you agree. I think the witness is
21 entitled to be able to read the report before he comments
22 on it.

23 MR. BAYLY: I'm quite happy
24 Mr. Chairman, if the witness reads the report and comes
25 back at some other time, but I think that's impractical and
26 I have another suggestion if Mr. Gibbs will let me make it.

1 The suggestion is this, that I
2 just take the items in the report, assuming there is no
3 report, and ask this witness if he has observed these
4 situations or problems in the community. If he hasn't, fine.
5 He's not the report writer and I'm not asking him to
6 guarantee the report, but I'm going to ask him if there are
7 alcohol problems, psychological problems, inflation, lack
8 of employment for women and a number of other things.

9 Let's put the report to one
10 side. Let's not use it as a red herring and suggest that
11 the witness shouldn't answer these questions from his
12 personal observations because he hasn't read it. I'm only
13 asking for his personal observations.

14 MR. CHAIRMAN: Well, in brief,
15 Mr. Gibbs, I understand what Mr. Bayly says he proposes to
16 do, is to invite the witness to agree or disagree with the
17 propositions, not with the report.

18 MR. GIBBS: Well then sir,
19 my submission, he doesn't need the report. If Mr. Bayly
20 wants to say, have you observed psychological problems in
21 northeast B.C., certainly, that's a proper question, but
22 not to comment on the conclusions in the report. If we
23 put the report away and he puts the questions that way,
24 we can have no objections.

25 MR. BAYLY: Mr. Chairman, I'm
26 quite happy that Mr. Yamauchi surrendered the report back

1 to the Secretary of the Inquiry. I don't want to confuse
2 him with it and I don't want him to look at parts of it
3 and not at others, because I think Mr. Gibbs is quite
4 correct, that may be unfair. But I'd like to go through
5 Mr. Yamauchi's observations on a number of things. If he
6 wants to read the report later and comment on it, that's
7 fine, but let's go through his observations.

8 He's a man who said he spent
9 more than an extraordinary amount of time in the Fort
10 Nelson area and he may be the one person that we can find
11 out these things from.

12 MR. GIBBS: Well surely,
13 if it's straightforward question and answer sir, there can
14 be no objection. I just object to him asking him to --
15 routing him to a page of a report and saying, in isolation,
16 do you agree or disagree. If he says as I said, either
17 psychological problems in your observation, of course.
18 That's a perfectly proper question.

19 MR. CHAIRMAN: I think we're
20 all agreed that Mr. Bayly is not going to invite the
21 witness to adopt or reject the report in whole or in part,
22 but he is going to put certain propositions to the
23 witness and with that, no one as I understand it, objects.

24 MR. BAYLY: Now, it was at
25 Mr. Gibbs request, that the report was given to Mr.
26 Yamauchi. If he'd like the witness to surrender that report,

1 I'm agreeable.

2 MR. GIBBS: Sir, I asked him
3 to put it because he began saying he was going to refer to
4 a report, but I take it he is now not going to refer to it,
5 so the witness doesn't need it.

6 MR. BAYLY: As a person who
7 spent a lot of time in the Fort Nelson area, as you've
8 already given evidence to, could you tell me whether you
9 observed that there are in the community, a number of
10 psychological problems among the inhabitants?

11 MR. YAMAUCHI: I couldn't
12 answer that question.

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1 A I couldn't answer that
2 question specifically, because I didn't make a study to see
3 whether they have or not, but when you talk about whether
4 any of the people in that area had a psychological problem,
5 I would say yes, because I for one had a psychological problem
6 over there because I wanted to get home.

7 Q And would you say that
8 that is not an uncommon problem in that community?

9 A No, it isn't an uncommon
10 problem because a person was, shall we say, anywhere near
11 sane, he would have that kind of problem, because he would
12 sooner be with his wife and kid.

13 Q So, particularly among
14 those people who are separated from their families, you would
15 say that there are psychological strains?

16 A Yes, of course, there's
17 a psychological strain. I can have a psychological strain
18 living at home with my wife and my child, because I may not
19 disagree with my child and my wife does. In our daily
20 living, we've all got psychological problems, and anybody
21 who says that they haven't got psychological problems right
22 there and then they've got a problem.

23 Q Well, I think that puts
24 it very well, sir.

25 Mr. Gibbs is taking his problems
26 with him.

2 Yamauchi, whether there is more than a usual amount of
3 problems with alcohol in the community of Fort Nelson?

4 A No, I couldn't answer
5 that question for the simply reason, because I don't know
6 what'more of' really means.

7 Q Well, then let me put it
8 this way. Do you find that there is a problem with over-
9 consumption of alcohol in that community? As an observer,
10 I'm not asking you as an expert, but as a person who's spent
11 a lot of time in that community?

12 A Well, when I walk
13 through Vancouver and walk through some of those sections over
14 there, I think that the alcohol consumption around that area
15 in Vancouver is greater than some of the sections that I have
16 seen in Fort Nelson. No, I --

17 Q There are more people
18 there too.

19 A Pardon?

20 Q There are more people
21 there too.

22 A Not in this one particular
23 section I'm thinking about, namely Skid Road. That is the
24 particular area I was thinking of in Vancouver. But I would
25 say perhaps that the alcohol consumption in Fort Nelson may be
26 greater than say for example if you take a section out of

Vancouver for the simple reason that in Vancouver there is many more things to do other than just say for example, to frequent taverns and such like.

Q Am I correct --

A But still at the same time, just because they frequent the taverns, I don't think that I would brand them, saying that they are either alcoholics or that their -- that alcohol has got the better of them.

Q I understand that, and I appreciate that you're not an expert in these matters, but would you say that people spend quite a lot of their recreation and leisure time in the taverns or drinking outside the taverns, perhaps in private homes?

A Yes, I agree with that thing, for the simple reason because of the territory that they are living in. Now say for example in Vancouver, we don't have to sit at the tavern all the time because we can either be golfing or we could be sailing or we could be fishing, we could be skiing, there's many things that we could do. Around in Fort Nelson, their recreation and such like is limited.

Q So you would say that because there are limited recreation facilities and opportunities, that people may use alcohol in their recreation to a large degree?

A This point I would like to

1 make clear, that yes, they may, but I'm not saying that
they are.

Q Alright.

A Now, because say for
example, with our own company personnel alcoholism is not
a problem and we do have a number of personnel working on
both pipeline operations and maintenance and in our Fort
Nelson gas process plant and alcoholism is not a problem
with us.

Q So, you're saying that
in the Westcoast operation, you don't find alcoholism is a
problem that interefers with people's work?

A That is true.

Q But nevertheless, you
have observed in the community that there is quite a lot
of drinking, which you attribute to perhaps lack of other
recreational opportunities among other things?

A This is only an
assumption for my part and not an observation. But I would
say that because of lack of time that they would perhaps
frequent those areas more than not, because I for one say for
example that after my day's work, I would go into my room
and I would open up a bottle of scotch, whereas if I am at
home, I wouldn't do that because for two reasons: because I
don't enjoy it, and secondly because I don't want my kids to
be thinking that I'm always going into the bottle.

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Q So, because of your
separation from your family and community, you may behave
differently than you would if you were at home?

A Yes, that is right. But
still at the same time, I don't let that rule me or let that
get the better of me.

Q I understand.
Can you tell me whether you
noticed whether a large number of the native people in the
community and in the adjacent area were or appeared to be
unemployed?

A No, I didn't observe
that. Let's put it this way, I wasn't able to observe it
as such, because during the normal working hours I am not
around town, I am where the work is. Therefore I was not
able to observe it.

Q If I were to suggest to
you that there were a large number of people, native people
that were unemployed, you would just say because of your job,
you can't make a comment on that?

A That is true.

Q And what about poverty in
the community? If I were to suggest to you that a third of
the community earns or appears to earn three thousand dollars
or less per year, would you say that that was probably some-
thing that you could confirm on observation of the community
and the adjacent area?

1 A No, I couldn't confirm
2 it but all I can say is that I do see many vehicles parked
3 around homes. I do see skidoos, they have curling rinks,
4 they have recreational facilities whereby they are able to
5 spend the money so whether they are able to do that on
6 three thousand dollars a year or not, I don't know, but then
7 I personally cannot say as to how badly poverty stricken a
8 group of people are.

9 Q You outlined a number
10 of the amenities of life, the physical signs that there is
11 money in the community. Did you also note signs that there
12 was lack of money among members of the community, poor
13 housing, or poorly dressed people or anything like that?

14 A I wouldn't say poorly
15 dressed people, for the simple reason that down in Fort
16 Nelson you're not going to be dressed up like if you were
17 in downtown Vancouver and also as far as the housing is
18 concerned, the housing in Fort Nelson is of a different
19 type of a structure than you would see in Vancouver. So,
20 therefore, from straight observation I am not able to say
21 how/^{badly}poverty-stricken they are.

22 Q Is there a great deal
23 of employment for women in the oil and gas industry in the
24 Fort Nelson area?

25 A I would say that the
26 employment opportunity for women in the oil industry in

1 Fort Nelson is nil for the simple reason that there's no
2 oil produced in the Fort Nelson area.

3 Q All right. Let's go
4 on to the production of gas rather than sticking with that.
5 In the production of gas in the Fort Nelson area, would you
6 tell me whether or not there are opportunities for women?

7 A Yes, there are oppor-
8 tunities for women.

9 Q And in what numbers?

10 A Well, I'm not prepared
11 to say in what numbers, all I can say is that we employ
12 women in our operation.

13 Q What proportion of your
14 operation is manned by women employees?

15 A We've got women work-
16 ing in clerical and stenographic capacities. We do not
17 have women working on pipeline operating bulldozers or
18 driving a ten ton truck or working on shifts and operating
19 the plant but we do have women in the clerical and steno-
20 graphic capacity.

21 Q I understand. Can you
22 tell me, with regard to training programs, are you in a
23 position that you have to send people outside the community
24 for training programs or do you do most of your training
25 on the job?

26 A We do it both ways,

1 like I mentioned a while ago, is that we have a very
2 elaborate and extensive apprenticeship program, which is
3 training on the job, and also we do send them to various
4 schools. Say, for example, that a vocational school was
5 in Prince George or Kelowna and such like so that they can
6 upgrade them themselves. Now, while they are in train-
7 ing and under apprenticeship programs, they are fully paid
8 employees and they enjoy all the benefits of the company.

9 Q Could you tell me,
10 did you observe a shortage of medical personnel or an over-
11 taxing of the medical facilities in the community at any
12 time when you were there? Perhaps observe is a bit narrow,
13 did you observe or hear about?

14 A When we first went in
15 there in 1964, there was a lack of medical personnel. I
16 believe that this condition has substantially improved since
17 then because they have a hospital operating in Fort Nelson
18 now.

19 Q Now that's fairly
20 recent, I take it, is it?

21 A It's quite recent.
22 I'm not sure but I know it's been in operation for better
23 than a couple of years.

24 Q Now, did you observe
25 any lack of community organization, either for recreation
26 facilities or for the running of the community?

1 A I wouldn't say the lack
2 of but I do know that there is a fair amount of community
3 organizations and recreation because they do have their
4 ball teams or the dog teams and the hockey teams that
5 travel around and the curling teams and such like.

6 Q What about housing
7 shortages? Did you observe housing shortages or the neces-
8 sity for people to double up in accommodation?

9 A Well, there was a
10 housing shortage in the sense that Westcoast put up a
11 number of housing units, apartment houses and condominiums.

12 Q And it was as a
13 response to a housing shortage that the company did that,
14 is that correct?

15 A That is correct.

16 Q Mr. Ellwood, if I
17 could turn to you, please.

18 On two, question three, you
19 talked about the differences in size of construction work
20 force on the two projects and you talk about the labour
21 force from Alaska for the Alaska project being almost
22 all residents of the State, whereas in your project you
23 anticipate that the workers will not be largely residents
24 of the Yukon. Now, I take it that is when you say residents
25 of the state, that is as defined for that project they were
26 residents of the state, is that what you mean by that phrase?

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1 MR. ELLWOOD: Do I mean that
2 they have established a residence or a domicile there?

3 Q Yes. You're saying
4 that they had, is that correct?

5 A Most of the workers
6 on Alyeska had a domicile, an address, a house, an apart-
7 ment or whatever, whereas most of the -- had that in
8 Alaska -- whereas most of the workers on this project we
9 don't anticipate that, they will have their domicile in
10 Alberta, B.C. or wherever.

1 Q Yes, but the definition of
2 domicile that you are using for nearly all the resident in
3 the State is the one that was accepted for the purpose of
4 obtaining work on the pipeline in Alaska, whatever that may --?

5 A No, the definition -- you
6 are referring to the Local Hire Act by the State of Alaska
7 there, they had a one year residency.

8 Q Yes.

9 A Now, I'm not saying that
10 they were residents there for one year. I'm not using that
11 definition. They were just there and had a residence. They
12 may have only been there for a week or, as soon as they
13 established an address, a residence, a domicile, rented an
14 apartment or whatever, as far as I am concerned, they have
15 then become resident there.

16 Q Your definition for the
17 project that you propose in the Yukon is that people will not
18 just be able to do that. You are anticipating a stricter
19 definition of Yukoner, being put in place, than just an
20 address?

21 A I think you are misinterpret-
22 ing entirely what I say here.

23 Q You are saying that most of
24 the people will be hired elsewhere.

25 A Yes.

26 Q Well then even if a person

1 who was resident in the Yukon happened to be Outside at the
2 hiring hall in Edmonton or Vancouver and went in looking for
3 a job and qualified --

4 A He's a Yukon resident.

5 Q But if he hired from the
6 south, he would fit that classification of most of the 2300
7 workers.

8 A No, he would be a Yukon
9 resident. What I'm saying is if the person from the Yukon --
10 a Yukon resident who's house is here, who's home is here
11 went elsewhere and got hired and came back here to work in the
12 project, he is a Yukon resident. This where his home is.

13 Q You would put him in that
14 category. It's **not** a question of where you are hired, but
15 you would be asked a question --

16 A It's a question of where
17 you live.

18 Q -- about domicile of the
19 workers who attempted to hire on outside the Yukon Territory?

20 A Yes.

21 Q The other difference that
22 you raise, on page five, is that for a three month period, in
23 some cases, in fact for most workers, there will be a three
24 month working period without days off. Do I understand that
25 correctly?

26 A I wouldn't anticipate that

1 it would be three months without days off. There are no
2 scheduled days off. There would be down time for adverse
3 weather or whatever, rain in the summertime, cold in the
4 winter.

5 Q Apart from down time which
6 can't be planned for, I realize you can contingency plan for
7 it, but you can't say that Tuesday will be a down day.

8 A Right.

9 Q You don't anticipate any
10 days off for the men that have hired on?

11 A On the pipeline work -- no
12 they will run straight through.

13 Q And what you say you will be
14 able to do is to return the people if they either quit or are
15 fired or their job is over to the point at which they were
16 hired, following their termination.

17 A We provide the transportation
18 to them, yes.

19 Q Now, would that be
20 immediately, or would that be on the next aircraft or ground
21 transportation available?

22 A It's immediate. Let's
23 say the worker quit at five o'clock, the next bus out of the
24 camp may not leave until after dinner that night, or it may
25 go a five after five. It's immediate in that sense.

26 Q If the bus -- if he

1 terminated his employment at five o'clock and the next bus
2 wasn't until after the week-end, if he terminated on a Friday

3 A There would be a bus
4 before then. It's that immediate, when he's finished, there
5 will be transportation for him that day out.

6 Q And where would that bus
7 take him?

8 A To the airport.

9 Q That's to the airport in
10 Whitehorse?

11 A Or Watson Lake.

12 Q And would he then be taken
13 out by scheduled aircraft?

14 A It could be either
15 scheduled aircraft or charter, depending on the volume of
16 traffic.

17 Q Now, if he were taken out
18 by scheduled aircraft and there wasn't one that day, or there
19 was only a full aircraft at that time, what would you propose
20 to do with this person while he was waiting for his airplane?

21 A House him overnight in the
22 camp and take him out as soon as we can make some arrange-
23 ment.

24 Q So that you would be
25 prepared, as a company, to keep him on site until you could
26 take him directly to the airport and to a flight that would

1 be leaving within a reasonable waiting period. You wouldn't
2 have him waiting overnight in other words?

A Yes. We have said that
3 we will be responsible for his transportation back, and that
4 implies that we are responsible for him until we can get him
5 on the transportation going south again.

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Q And have you thought out whether you will be giving tickets to these people or whether you will be making arrangements with the airlines? What I'm concerned about is that people may take their ticket and cash them in and decide to stay or move to another spread or to another kind of job in the Yukon.

A Well, if he goes on a scheduled flight, of course, he'll have to have a ticket. It can be non-refundable in the sense that he can't cash them in. We're not giving them the option, if you wish, of so many dollars or a flight out, we're giving them the flight out.

Q I see. And have you talked to the scheduled airlines to see whether there would be a problem if the man wanted to change his reservation rather than cash in his ticket, to stay a week or a month?

A I haven't talked to them, no.

Q You see that as a possible situation with regard to some workers, though?

MR. YAMAUCHI: Mr. Ellwood, if I could interject and give a little experience in here -- what we had experienced in the past fifteen hundred miles working with the contractors. Now, when the termination time comes, that's when your biggest layoff comes because your crew is laid off. Now, you can foresee a number of

hours ahead, you can see it a day ahead. The officer manager of the pipeline contractor makes arrangement with the airlines stating that they are going to have so many people leaving on a particular day and the minute their portion of the work is completed, their cheque is ready for them and they are transported to the air terminal where they depart. Now, as you say, anything is possible. There may be one or two or a small percentage of people who remain behind for whatever reason it is but then, from my experience, I don't see anybody hanging around that community or settlement unless they had a particular friend or anything like this here. Other than that, they would go back to wherever they had come from because they have left behind more than what they have found at that particular community. In my experience, I have not found that they do just hang around to see if they can perhaps take on more work or for whatever the reason is. Now, supposing if you're working around Banff or Hawaiian Islands or something like this, I can see where they would like to hang around but when you're finished up, talking about in British Columbia, somewhere between the Beaton River and the Sikkani Valley where there's nothing and you drive two hundred miles and the first thing you get to is Fort St. John or you drive around in reverse, go back reverse and you just end up at Fort Nelson, I just can't see, and these people also just can't see what they should around over

there for, that they do move on.

Q I understand that three hundred thousand tourists a year would say you're wrong about this part of the country.

A But how long do the tourists stay? Like I like Whitehorse myself, I would like to bring my wife and family over here someday because it's a beautiful place, but then after if I had worked over here for three months or six months or eighteen months and left my wife and boy behind, I don't think that I would want to stay here another day or two days extra.

Q I can understand that. Can I go back to you, Mr. Ellwood?

Will there be anything to prevent people who hire on in Southern hiring halls from either driving their own transportation up or having a friend drive it up for them so that they'll have a vehicle at their disposal in this part of the country?

MR. ELLWOOD: No, I don't suppose we can -- well, in fact, I know we can't stop a person from having his friend drive his vehicle up the Alaska Highway, there's nothing to prevent that arrangement, it's just purely improbable, not a situation that, in our opinion, would occur.

Q And you wouldn't anticipate that this man either would do that or drive it up

1 himself. Would he have an opportunity to drive it up himself?
2 If you were hired in the Edmonton hall to work on a certain
3 spread and you were to report within forty-eight hours and
4 felt you could drive up within that time, I suppose there'd
5 be nothing to prevent you from doing that.

6 MR. BURRELL: My feeling is that the
7 unions would not encourage that, they would -- this is in
8 our discussions that we've had with the Canadian Pipeline
9 Advisory Committee, that they would not encourage that --
10 they would encourage their members to fly. Mr. Yamauchi said
11 from his own, perhaps I should let him speak, but he has
12 personal experience with regard to people going from Van-
13 couver up to Fort Nelson -- if he could speak about that.

14 MR. YAMAUCHI: From my personal
15 experience, Mr. Bayly, the majority of the boys, I would say
16 perhaps maybe better than ninety percent of the people would
17 prefer to fly up than to drive their vehicle up to Fort
18 Nelson or to wherever it might be for the simple reason that
19 if they fly up all the responsibility is on someone else,
20 whereas if they drive their own vehicles, even if you get it
21 up to the other end where the work is, what good is their
22 vehicle, for the simple reason, what good is their vehicle,
23 because once you get onto the job site, you start off --
24 you report to the warehouse seven o'clock in the morning,
25 that means that you would have to get up at least somewhere
26 around five-thirty, six o'clock. Then you work in the

evening at least till five-thirty in the evening, that is, if you're working only ten hours a day, some of the crews they work longer than that, some of the crews even work longer than that, they don't get back in till about after dark. What good is the car, it's just a nuisance to them because when they move camp they've got to move their car and their car's just laying idle over there and just gathering dust. Now, in my experience around these camps jobs or even in town jobs, that you don't see too many vehicles.

MR. BURRELL: We're not providing any parking facilities either.

Q I understand that. We've had that stated before by the company. There's nothing to prevent this -- you're saying it's impractical and probably very few people will do it.

MR. BURRELL: Yes, I think we've made the statement many times before that it is a free country, people are free to do what they wish but the probability of it happening is very, very low, in our opinion.

Q Yes. And there's nothing to prevent a person if they wanted to, although you say it's unlikely, from purchasing a vehicle when he's up here if he decides he wants transportation around, perhaps not after dark, because if the summer construction goes as planned, there may not be very much dark.

A He's going to be working pretty long hours, too, Mr. Bayly.

Q He will have time to spend some time in the company tavern, though, I presume, or you wouldn't be building them.

A He's not going to have much other time left though, is he?

Q But he may take the opportunity to drive around rather than go drinking, I put that to you as a possibility for some of the workers.

A He's got to get to his car first, I suppose, and I don't know where he's going to park it.

Q Yes.

Mr. Ellwood, I take it that some of the problems with comparing Alaska to the Yukon Territory, that is, to comparing the Alyeska experience with that which you would anticipate for your project in the Yukon, is not only that those elements you've described, but that you're looking in the Alyeska situation at a producing, as well as a transportation region. Do you agree with that.

MR. ELLWOOD: Yes, we are. The oil is definitely being produced on the north slope.

Q And would you say that the situation in Alaska as a result of this would bear more

1 comparison to the Fort Nelson situation than to the antic-
2 ipated Yukon situation?

3 A Does that -- does
4 Alaska bear more resemblance to Fort Nelson --

5 Q -- to the northeast
6 region, if we can call it that, of the Province of
7 British Columbia than to the Yukon as it may be affected by
8 your project. For the reason that there are production as
9 well as transportation facilities in that region?

10 A I have a great deal of
11 difficulty with that because I don't know Northeastern B.C.
12 that well so I'm having difficulty comparing Alaska to
13 Northeastern B.C. and trying to relate that to Yukon.

14 Q Yes. You brought Mr.
15 Yamauchi here, your companies that sponsor, if we can call it
16 that, the Foothills project, Westcoast and other companies,
17 have experience in that area, though, I take it? What
18 you're saying is that you don't have personal experience with
19 that area yourself?

20 A Right.

21 Q And those people that
22 may have experience in the Northeast of B.C. may not have
23 the experience that you have with regard to Alaska?

24 A Yes, and the Yukon.

25 Q Sometime you'll be sit-
26 ting down and talking to each other about this.

A We do, yes, we're just

having trouble finding the one person who knows all three.

Q All right. Those are
all the questions I have, thank you, gentlemen.

MR. PRITCHARD: Mr. Morrison?

MR. MORRISON: I just have a
couple of questions, Mr. Chairman, and perhaps we may want
to -- Board counsel has advised that we will possibly, and
most probably, see the Pipeline Advisory Council as a panel.
I'd prefer to address my questions to them. The problem I
have is that if they don't come then I don't have an opport-
unity to ask them.

Perhaps if the Chairman would
allow, I can defer to the Pipeline Advisory Council and if
they don't come, perhaps Mr. Ellwood could answer the ques-
tions at a later date. They're dealing with unions and
union contracts and so on.

MR. HOLLINGWORTH: It certainly seems
an expedient method of proceeding to me, sir, and I think on
behalf of Mr. Ellwood we can undertake that if Mr Morrison
wanted to file some questions we'd answer those to the best
of our abilities, including consulting with the Pipeline
Advisory Council and attempting to answer them.

THE CHAIRMAN: That sounds mutually
satisfactory and you then will be passing completely on
examination at this stage, Mr. Morrison?

MR. MORRISON: Yes. Thank you.

MR. PRITCHARD: Can't turn down an offer like that, eh?

Mrs. McPherson? Mr. Horton?

Is there anybody here

MR. HORTON: No questions.

MR. PRITCHARD: Is there anybody here for Whitehorse? Anybody from the floor who'd like to ask a question? Arctic Gas?

MR. TAVES: Thank you.

CROSS-EXAMINATION BY MR. TAVES:

Mr. Ellwood in answer three on page two, you indicate that the Alyeska project reached a peak of labour force of twenty-two thousand, four hundred people and you project the Foothills peak direct and indirect work force at approximately twenty-three hundred people or one-tenth of Alyeska's total. Would you agree with me, sir, that the ratio of Alaska's population prior to the Alyeska boom relative to Yukon's population of today, would be roughly ten to one?

MR. ELLWOOD: Yes, that's correct.

Q On page three, sir, answer four, you speak of, I guess it could be called the siphoning project, I take it your point is that the project south of the Yukon will siphon off job seekers prior to them reaching the Yukon, is that correct?

1 A Yes.

2 Q Would you agree with
3 me that given the visibility of this project, that the
4 overall project could well be perceived as an international
5 project and that Yukon will be seen as the centre of the
6 action?

7 A No, I wouldn't agree
8 with that.

9 Q Would this be because
10 of your advertising campaign?

11 A No, it's partly....
12 having worked with pipeline construction industry in Alberta,
13 I know that the work force there perceives the pipeline
14 construction to be generally in Alberta, notwithstanding
15 that Westcoast or some other firm may be building pipelines
16 in B.C. at the same time. So from what I know of the work
17 force, they relate to the area where they're at, as being
18 the centre of the action.

19 Q Would you agree with
20 me in this way though, that this pipeline in all the news-
21 papers in Southern Canada is called "The Alaska Highway
22 Pipeline". Now, don't you think that it's reasonable for a
23 person reading that to consider that the centre of the
24 action might be in the Yukon, rather than Alberta and B.C.?

25 A I agree that the
26 Yukon section, the Foothills section of this thing is getting

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a lot of publicity, certainly a lot more than the B.C. section or the Alberta section on the national scene. But I think that by and large, you're under-rating the work force, the Canadian labour force in assuming that they don't know what the situation is. Certainly, they will have ample opportunity to find this out as the work progresses -- as the project progresses, when the certificate is issued and our information program is underway.

Thank you. I have no further questions.

MR. PRITCHARD: Perhaps Mr. Chairman, despite our 10:00 o'clock agreement, I might try and just be very brief at this point and finish with this panel.

CROSS-EXAMINATION BY MR. PRITCHARD:

Q If I might start with you Mr. Yamauchi, I sort of understand your background is engineer is it not?

MR. YAMAUCHI: Well, I work in various fields with the company.

Q But you were trained as an engineer?

A No, I wasn't trained as an engineer.

Q In what field is your training sir?

1 A I'm a technologist.

2 Q You indicated that
3 your evidence is based merely on personal observations under-
4 taken in your rather extensive visits to the Fort Nelson,
5 that is correct is it not?

6 A That is correct.

7 Q And so your testimony
8 is not based on any studies documenting the local impact
9 of the Fort Nelson construction? It's based only on your
10 personal observations.

11 A I wouldn't say not
12 necessarily only my personal observation. I would say that
13 this observation of the company.

14 Q But it's not based on
15 any particular studies of the local impact?

16 A No, we never made a
17 complete special study of it by way of hiring a consultant.

18 Q And you're not aware
19 of any studies which have been done of the local impact in
20 the Fort Nelson area?

21 A Not to my knowledge.

22 Q Just further, just to
23 get a picture of the ongoing employment in the Fort Nelson
24 area, how many operation and maintenance personnel would
25 there be related to the gas line going through the Fort
26 Nelson area?

1 A You're talking about
2 operation and maintenance personnel of the pipeline only and
3 you're not making any reference to the gas grant or to our
4 sulphur plant.

5 Q I was going to start
6 with the pipeline and then go through each of those, so you
7 might indicate the number of persons employed in each of
8 those activities.

9 A No, I couldn't give
10 you an exact figure, but I could get you an exact figure
11 though.

12 Q On each of those
13 activities?

14 A On each of those
15 activities, yes.

16 Q Could you add to that,
17 the number of persons employed in exploration work in the
18 Fort Nelson area also?

19 A That would be
20 difficult for us, I would say.

21 Q Okay, if we could have
22 the figures on the first three at sometime, at your con-
23 venience. Thank you Mr. Yamauchi.

24 Mr. Ellwood, you indicate in
25 your evidence that there were somewhere just over twenty-
26 two thousand employees in the Alyeska project, is that right?

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MR. ELLWOOD: Yes.

Q Do you know what the projected Alyeska labour force was when the project was in the application and planning stage, at a point equivalent to where the Foothills project is at this time?

A No I don't.

Q Do you know whether it was anything close to twenty-two thousand?

A No I don't. Their design phase went through quite a change and earlier projections of manpower would have to be tied in with that design phase to -- I really have none of those figures.

Q But those earlier projections were somewhat lower than the twenty-two thousand as far as you know?

A Well, I don't have them, so I don't know whether they're higher or lower.

Q You indicate in your insert to -- oh, Mr. Burrell, do you have the answer to that question?

MR. BURRELL: I don't have the answer to the question, but I was going to say that we consider the pipeline installation in the Yukon to be a conventional installation and something that Alberta Gas Trunk Line and Westcoast have done for years and they're the people that helped us estimate. I thought you were driving at the

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point of the possibility of a large overrun in --

Q I was just inquiring
about the projection as to --

A Well, I wanted to
get that point in, in case that's what --

Q I think we've heard
that point before Mr. Burrell. Thank you.

You indicate in your answer to
Mr. Taves, Mr. Ellwood, that the ratio of the number of
proposed employees to the population of the territory was
similar for Alaska -- for Alyeska as it would be for the
proposed project in the Yukon, is that correct?

MR. ELLWOOD: Yes, they are
roughly equivalent.

Q Would you then agree
that in terms of relative size, would it be fair to conclude
in terms of relative size, that the Alyeska and Foothills
projects are quite similar?

A I just agreed that the
ratio of employees on a project is similar to the ratio of
population in the two territories and that's the extent of
the similarity.

Q That might be a fair
measure of the relative size of the two projects. That would
be one measure of the relative size?

A Relative size of the

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two projects would be ten to one in terms of manpower.

Q But to try and get a bit of a fix on the size relative to the area in which the project is taking place, would you agree that to take the number of persons expected to be employed as a ratio -- as a proportion of the population might be one way of comparing the two projects?

A If you wanted to do that, yes you would make that comparison.

Q How long is the summer work cycle in your proposed construction schedule?

A Well as I indicated in the evidence, the camps are operational for about five months in the summertime.

Q About five months?

A Yes and the -- but not all of the functions that are going on are active during that time that the -- if you are an individual employee say a welder, you would not be there for five months, you would be there probably for three.

Q The longest that any employee will be in any one camp is three months?

A No, some employees are there for the duration. For example, the catering staff and the management staff of course --

Q On the construction

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1 staff, would any employees be there longer than three months?
2 Say thirteen weeks.

3 A If the mechanics --
4 it's the people out actually handling the pipe building line
5 that are in the shorter cycles because one crew starts before
6 the next can start, so they are phased in and phased out.

7 Q So there will be
8 persons out there laying pipe who will be involved for up to
9 thirteen -- stretches of thirteen weeks? The three month
10 figure you gave?

11 A Yes.

12 Q Okay and you suggest
13 that is the reason for which one might distinguish the
14 Alyeska project where the work cycle was only nine weeks
15 and then fall by rest and recreation for a couple of weeks,
16 so that your workers will be working longer work cycles --
17 a longer work period than the persons in Alyeska?

18 A No, what I was trying
19 to suggest there was that the -- in Alyeska, you have the
20 cycling of the workers into town, generally into Fairbanks
21 and then back out to the job -- back into town, back out to
22 to the job.

23 Q I understand that.

24 A And you don't have
25 that here. You have just the one cycle. They go to the job
26 and then they go home.

Q But the implication of that is that the work cycle for persons in Foothills will be longer than that person's in the Alyeska project?

A Well yes, it says quite clearly - nine weeks to three weeks for any given Alyeska cycle, but when you have to count the next Alyeska cycle so they run longer than we do.

Q I further remember that Mr. Burrell, I think earlier today, suggested that these workers would be working seven days a week except for the down periods which might occur sporadically, is that correct?

A Yes.

Q Does such a construction schedule, such a work schedule for individuals of thirteen weeks of seven days a week and we've heard suggestion before, these would be each long days. Does that kind of schedule cause you any concerns about safety of the workers or the ability to workers to maintain their productivity during that period?

A No, this is standard practice in the pipeline industry and the safety precautions are -- they are necessary to protect the work force --

Q So the Alyeska work cycle of only nine weeks was an exception to the general practice in the industry which -- that would be shorter than the usual practice?

A Well, it's different.
It's an exception to the standard Canadian practice. I don't
know whether that would be more typical of the U.S. practice
or not.

Q And there is a practice
in Canada of persons working in isolation for thirteen weeks
at a time, seven days a week?

A As I understood Mr. Ellwood's
response, he was suggesting that there is a Canadian practice
of persons working for thirteen week stretches, at seven days
a week, but for down periods, in positions of isolation
similar to what's being suggested for the work sites in
Yukon.

I was asking if that is representative
of the experience.

MR. YAMAUCHI: You are specifically
saying Yukon now, instead of Canada, like you said earlier?

Q Well, I'm asking about
Canada in analogous situations.

A Now, this case over here,
sir, is not an observation. This is historical fact. We
have laid many, many miles of pipeline like I said a while ago
and we have worked out of relatively isolated places, and we
have been in camp -- a particular person would be in a camp
perhaps longer than thirteen weeks. Now, one of the reasons
as to why they are able to extend the thirteen weeks, is

because they know very well that at the end of the thirteen week or the end of the fourteenth week, that he is going have a complete lay-off. Now, at the best, until the next the forthcoming winter, so therefore, he would like to work as long as he possibly can. Now it has been a practice in British Columbia anyhow which I can speak quite authoritatively is that particularly the skilled labour that they would stay on the job from the start of the job to the end of the

It's only the labourers and the semi-skilled who towards the tail end of the work, depending on the time of the season, that they would quit the job and seek another job. Like I said, depending on the time of season.

Supposing if the job was ending at the end of the spring or the summer when another job is ready to take-off, then that particular labourer or semi-skilled person would quit. But now if this job was say for example a winter job, and it is ending around the middle of March, he would definitely not quit because there is definitely not another pipeline job awaiting him until at least the earliest, the middle of May.

Q Thank you Mr. Yamauchi.

If I might return to you Mr. Ellwood just to get this clear, it is the conclusion of your company then, that a thirteen week work period would be all

right and in that sense the Alyeska practice was shorter than
a successful
necessary for construction project. One can stretch the
work cycle out to thirteen weeks and the nine week period. One
can go beyond the nine weeks.

MR. ELLWOOD: I think what we're
saying here is that what I understood from talking to the
Alaska people, the contractors up there, is that really they
set a nine and two because they had to come back so it wasn't
that there was just an eleven week job, but they knew they
were going to have to come back after eleven weeks. So that
they shortened it up a little bit to accommodate this cycle,
whereas, this ends after thirteen and that's it.

Q Well, just to explore
a little further, Mr. Ellwood, the possible similarities and
differences between the Yukon and Alaska, I invite you to
turn your attention to ^{the} question of access to the area.

Would you describe Alaska or Yukon
as more accessible to southerners seeking work?

A The Yukon is probably
more accessible to Canadians, than Alaska is to Alaskans, --
or to United States people, it's just a shorter distance.

Q Is it also not true that
in the Yukon, the whole project is accessible by means of
the highway, unlike in the Alaska situation where the highway
only extended half way up?

A Yes, the whole of our

project is accessible by highway.

Q You suggest also in your evidence that the primary grounds of distinction of the Alyeska project and this project, is Foothills' proposed policies dealing with southern hiring, the self-contained camps, the information program, and similar matters. Is that not true?

A Yes.

Q And so it is expected that the negative impacts of Alyeska will be avoided in large part by the Foothills' policies.

A Yes, I would add that these are more than just our policies. This is a standard Canadian pipeline practice.

Q But it is the basis -- the thrust of your evidence is that one ground -- primary grounds for distinction of the Alyeska experience and the expected experience in Yukon is that your policies will make the difference? Policies that you are proposing which are different from those which were used in Alyeska. Isn't that right?

A Yes, our policies and the fact that this -- what we are proposing to do is standard Canadian pipelining practice, and therefore, to assume that the practice followed in another country would pertain here is -- what I'm trying to get across, is that it is invalid to assume that what another country does is

what happens here.

Q So, the avoidance of these negative impacts is contingent upon the successful implementation of the policies which you suggest?

A It's contingent upon the successful continuation of the Canadian pipeline practice. If we disrupt that practice that is the same thing.

Q That is to suggest that Canadian practice in pipeline construction is to have completely self-contained and isolated camps?

A It is where they are necessary, yes.

Q Where necessary? Where are they necessary? As I understood Mr. Yamauchi's evidence he indicated that in the Fort Nelson area, the persons working on the pipeline work frequented the town and indeed contributed to the local economy by their participation in the town.

A Mr. Yamauchi might correct me on this, but I believe his evidence read that of the two spreads, the southern spread had twenty per cent of the work force living in trailers. They also had a camp and their northern spread was out of a camp. I know of camp jobs in northern Alberta and southern Alberta, central Alberta. But really, whether or not you put a camp is contingent upon whether or not there is sufficient accommodation locally. That's

MR. CHAIRMAN: Mrs. Bohmer, do you

have a question?

2 MRS. BOHMER: I don't know who can
answer. But I'll address this to Mr. Yamauchi.

4 You said that you knew Harry Dickie,
the former Chief. I would like to know if gas was made
6 available in the Fort Nelson area to some of the communities
along the route? Like, I'm thinking of the Fort Nelson
Slavey Indian Band.

8 MR. YAMAUCHI: That I couldn't
answer, because we are the transmission people. We are not
the distributors. There is another firm in Fort Nelson that
distributes gas and it's their -- they would draw the gas
from us, and then it's their responsibility to distribute
the gas to an individual consumer.

12 Whether they made it available to
the people at the Slavey camp, I don't know.

14 MRS. BOHMER: Is there any way I
can get this information?

16 A I can find out for you.

18 MRS. BOHMER: Okay, I want to know
some other things. If they do supply gas to the Fort Nelson
Indian Band, I would like to know when they converted to
gas, and like the year, and I want to know if Westcoast or
the utility company had an education program to inform the
Indian people about the conversion to gas, and how long this
process took. I understand by talking to the Mayor of Fort

1 Nelson, when he was in Watson Lake, that the Indian Band did
2 convert to natural gas.

3 I would like to know what they
4 were using as a fuel before the conversion, and did the
5 utility company negotiate with the Band Chief before gas
6 was taken into the community and I would like to know how
7 long the education process to get the native people to cook
8 with gas, or heat with it.

9 That's all my questions.

10 A I'll do my best, Mrs.

11 Bohmer.

12 MR. CHAIRMAN: You had indicated
13 that you didn't have figures on the number of native people
14 who were employed by Westcoast in that area.

15 A I'm sorry, sir. I missed
16 the first part of the question?

17 MR. CHAIRMAN: Does Westcoast have
18 any information about the number -- either numbers or the
19 percentage of the employees in the area who are native
20 people?

21 A You mean within our
22 company?

23 MR. CHAIRMAN: Yes.

24 A Yes. Our personnel
25 department would have that exactly.

26 MR. CHAIRMAN: That information

could be obtained?

A Yes it can be obtained.

MR. CHAIRMAN: Could I ask if that
also could be supplied to the Inquiry?

A Yes.

MR. HOLLINGWORTH: Is that coming
from the Fort Nelson area office, sir, engaged in operations
and maintenance, or employment in the gas plant and the
sulphur plant as well?

MR. CHAIRMAN: I was thinking
primarily of the operations and maintenance of the pipeline.
If the information is available on the other activities,
that would be welcome in addition.

Now, Mr. Pritchard you were
indicating -- thank you gentlemen -- Mr. Pritchard you were
indicating that Council for Yukon Indians has a witness,
Mr. Morlan. who must be away tomorrow and call on him in a
moment, if that's agreeable to all concerned.

(WITNESSES ASIDE: ELLWOOD, BURRELL, YAMAUCHI)

MR. CHAIRMAN: I'm going to
suggest we take about a three minute break to stretch before
we do that.

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT).

MR. CHAIRMAN: Ladies and gentlemen, I wonder if we can come to order now.

Mr. Joe?

MR. JOE: Mr. Chairman, I'd like to introduce at this time, Dr. Richard Morlan who is working for the National Museum of Man. He's presently doing some archaeological work in the Yukon and I wonder, Dr. Morlan, if you can summarize very briefly your academic as well as your work experiences which you have appended to your written evidence.

DR. RICHARD MORLAN, Sworn;

DR. MORLAN : Yes indeed.

In terms of formal training, my degrees are all in the field of anthropology with specialty in archaeology; BA degree completed in 1964, the Masters in 1967 and the PhD in 1971.

All of my experience in the Yukon has been in connection with my position as the Yukon Archaeologist in the Archaeological Survey of Canada, National Museum of Man. That now amounts to ten years of field work in Yukon Territory on various subjects pertaining to archaeology and paleoecology.

Particular experience that is relevant to this Inquiry is my involvement for the past five or six years in archaeological concerns arising from pipeline applications and considerations. For example, I

testified two years ago at the request of the Council for Yukon Indians here in Whitehorse before Mr. Justice Berger. I was also a member of the Pipeline Application Assessment Group, headed by Dr. Fyles and assisted in the preparation of their report.

MR. JOE: Thank you Dr. Morlan . Now I wonder if you could proceed to read your written evidence.

DR. MORLAND: I'd like to preface my remarks if I may by saying that the concerns I wish to identify pertain not only to archaeology, but also to paleontology. The specific concerns with respect to paleontology are difficult to identify because I have not identified particular sites along the proposed route that we might be able to enumerate. Instead, we would expect to encounter paleontological deposits of various kinds, but these could be handled in connection with archaeological work.

Archaeological work in Yukon Territory has shown that human occupation goes back some thirty thousand years or more and probably has been continuous since that time in much of the Yukon. The excavation and interpretation of archaeological remains is of importance to Yukoners in particular and to Canadians in general, because it is only through such work that the long record of prehistoric development of native people can be revealed and

1 understood. Since writing systems were introduced to the
2 Yukon only as Euro-Canadians moved into the area, the only
3 record of previous human occupations consists of the
4 fragmentary stone and bone artifacts found in archaeological
5 deposits. This record is a sparse and non-renewable resource.

6 Only a relatively small number
7 of sites were buried by natural processes and therefore were
8 preserved for study by modern archaeological techniques.
9 These sites are precious because they are rare and because
10 many of them are small. We cannot afford to permit their
11 deliberate or unwitting destruction by development projects
12 or other modern activities.

13 This is not to say that
14 development is always bad from the standpoint of archaeology.
15 Indeed in this large territory with its relatively brief
16 history of large scale development, archaeological sites
17 are difficult to find, simply because they are seldom
18 disturbed. In contrast, the southern prairie provinces are
19 much better known archaeologically, precisely because the
20 widespread plowing and other land use activities have
21 revealed hundreds of sites for study.

22 Thus, development of a pipeline
23 route can be seen as a two-edged sword from the point of
24 view of archaeologists. On the one hand, the excavation
25 of a pipeline ditch and the numerous borrow pits, airstrips,
26 and other facilities, may destroy archaeological sites and

1 thereby comprise a negative impact on archaeological
2 resources. On the other hand, these same activities may
3 reveal sites which might otherwise never be discovered so
4 that a positive impact can also be foreseen.

5 The archaeological concerns
6 arising from pipeline projects such as that proposed by
7 Foothills, thus consist of an effort to minimize the
8 negative aspect of the impact while taking advantage of the
9 positive edge of the sword.

10 Foothills has engaged the
11 services of a reputable archaeological consulting firm and
12 has included in its application, a basic plan for handling
13 archaeological materials once they are identified in the
14 field. Indeed, the applicant has done a creditable job of
15 archaeological assessment along the Alaska Highway. Data
16 reflecting known site distributions appear to be complete
17 and most of the concerns which arise from major construction
18 projects, have been presented in a balanced manner with
19 recommendations in keeping with general archaeological
20 expectations as well as with previous pipeline consider-
21 ations.

22 Most aspects of the archaeolog-
23 ical concerns would be adequately covered if the recommen-
24 dations respecting archaeology were made conditions of the
25 permit. A few considerations, however, require more
26 explicit statement.

A major point in favour of the Alaska Highway route as opposed to other proposed routes, is the fact that much of the Alaska Highway traverses land which was repeatedly covered by glacial ice prior to ten thousand years ago. Thus, much of the route is situated in areas where the archaeological record was erased and began to accumulate anew only ten thousand years ago.

Fewer deeply buried sites of great antiquity would be expected to occur along the Alaska Highway than along those routes which pass through unglaciated land in northern and central Yukon. Furthermore, the general environs of the Alaska Highway have been subject to widespread surface disturbance by rerouting of the highway and its many small side roads, by clearing and leveling for pipeline and hydroelectric right-of-ways and by other recent activities too numerous to list.

In addition, almost all archaeological work accomplished in southern Yukon to date, has been staged from the Alaska Highway and it is along that road that most of the known archaeological sites can be found. The known sites can be dealt with in advance of construction and it is the unknown sites which pose the greatest problems in that they may be destroyed before they are clearly identified. These considerations entail our first two specific concerns.

Known site distributions may

1 be quite misleading, simply because of the concentration
2 by archaeologists along the Alaska Highway. This is in
3 marked contrast to the northern Yukon pattern where the
4 absence of roadways has caused archaeologists to organize
5 their surveys along streams and around lakeshores.

6 Since prehistoric transportation
7 patterns more closely reflect the drainage ways of the
8 natural landscape, the northern Yukon research may have
9 provided us with a better reflection of real site distri-
10 butions. In the south, on the other hand, the survey work
11 to date may not have sampled such distributions adequately.
12 The very framework of known prehistory in this area may
13 still be subject to significant revision.

14 Most known archaeological
15 sites could be salvaged quickly were they to be threatened
16 by a development project. We can identify three areas of
17 potential significant impact on known archaeological sites
18 along the Alaska Highway route. The westernmost is in the
19 Burwash vicinity where a concentration of archaeological
20 materials in about a dozen sites, has been known since the
21 mid 1940's.

22 Depending on the exact routing
23 of the pipeline, one or more of these sites might be
24 destroyed by construction activities. Such sites should be
25 re-examined in advance of construction so that rescue
26 excavations can be undertaken or minor relocation of the

1 pipeline can be arranged. One site of monumental importance
2 lies very near the pipeline route at the crossing of the
3 Aishihik River. This site called the Canyon Creek site,
4 has produced our earliest dated evidence of human occupation
5 in the southern Yukon.

6 A radiocarbon date of about
7 seven thousand two hundred years ago lies at the base of a
8 long sequence of human occupations of which more than a
9 dozen have been identified in a stratigraphic profile more
10 than ten feet deep. This site lies on the north side of
11 the highway, on the high bluff above the Aishihik River and
12 it should be avoided by any and all activities connected
13 with the pipeline or other development projects.

14 The third and most easterly
15 concentration is at Champagne, where nine archaeological
16 sites have been designated since 1944. Several of these
17 sites are small find spots which could be rescued quickly
18 once the final route selection is known, but two of the
19 sites would require more extensive excavations and might
20 warrant rerouting of the line.

21 The real impact of the pipe-
22 line project could lie in the area of unknown sites which
23 would be discovered during construction. We do not yet have
24 a basis for assessing the importance of this possibility for
25 site discovery, but even the recovery of a few very ancient
26 well preserved sites could augment our knowledge of Yukon
prehistory quite considerably.

What means can be devised for marking newly discovered sites at the time of discovery and preserving the markers for later investigations of site contents? For those few sites which may actually warrant excavation following completion of the construction phase, what limitations will be placed on access to the right of way for such investigations? Obviously, the area of the site within the ditch and the backfilled area would be too badly disturbed to warrant further examination. However, some such sites would likely be of sufficient lateral extent to enable archaeologists to recover useful information through excavations conducted in the vicinity of the pipeline after it has become operational.

Keeping in mind the need for stable erosion control measures and other such considerations, to what extent will archaeologists have an opportunity to carry out excavations in the vicinity of the pipeline?

Will such post-construction ex-
cavations be included in the funded archaeological project

proposed by the applicant? Even the act of discovery of sites during the ditching phase of the work would likely set in motion various processes of site degradation, through the introduction of oxygen to the site matrix and through changes in the moisture content of the surrounding matrix.

For these reasons, such site investigations should be seen as an integral part of the archaeological project, even if they are carried out following the construction phase.

The applicant seems to anticipate that members of the Environmental Inspection Team can be trained to recognize archaeological remains which can then be reported to archaeologists who would be standing by to carry out field investigations. We submit that the field evidence of archaeological deposits is so subtle and minute, especially when seen in cross-section as in a ditch wall, that only a trained archaeologist can adequately carry out the initial identification of archaeological remains. Is Foothills prepared to include an archaeologist on its Environmental Inspection Team?

Will an archaeologist be among the small group of field workers who will have an opportunity to examine the ditch walls?

Will adequate lighting and logistics support be made available for such work in the ditch?

The applicant has done as thorough

1 an analysis of potential site distribution as could be
2 expected on the basis of our very limited sample of known
3 sites, and on the basis of land form and drainage analysis.
4 Such predictions can be quite hazardous, however, since
5 they must be based on present land forms, soil types and
6 vegetation patterns. Distributions of ancient sites could
7 differ quite markedly from more recent ones, simply because
8 of environmental changes since the time of ancient occupa-
9 tions.

10 Areas now occupied by muskeg in
11 which the likelihood of site discovery is very low, could
12 have been characterized by much drier substrate, with a
13 deeper active layer in the distant past.

14 Deeply buried sites could occur
15 unexpectedly in such areas. This means that no portion of
16 the ditch should be ignored as a possible source of archae-
17 ological materials. All ditch walls should be examined
18 and provisions for adequate lighting and logistics support
19 should be ensured for this phase of the archaeological work.

20 In view of the several other
21 proposed routes now under consideration, we must ask whether
22 the applicant is prepared to conduct a thorough analysis of
23 known sites and site potential in the Dawson area, along
24 the Dempster Highway, the Klondike Highway, and in the
25 Tintina Trench, when and if application for one or more of
26 these routes is made.

1 Will assessments similar to that
2 along the Alaska Highway be undertaken in these areas?

3 Finally, I wish to note that these
4 archaeological concerns are not merely esoteric items
of strictly academic interest. The public is increasingly
aware of the educational importance of archaeological work.
There are lessons to be learned from the past, such as the
exact role of man in the extinction of large game animals
around ten thousand years ago. In general terms, we should
always remember that the earth's surface and its resources
can only be understood in the present through a study of
their past development and evolution.

13 As we develop the mineral, petro-
14 leum and hydro-electric resources of this region, we must
15 safeguard the non-renewable, historical resources enclosed
16 in the upper layers of the soil and sediment. Only from
17 such resources can we learn the lessons of the past and
18 evaluate our role for the future.

19 As Leo Tolstoy has noted,
20 appreciation consists of understanding combined with enjoy-
21 ment. We can enjoy the Yukon in many ways, but we cannot
22 fully understand and thereby appreciate the Yukon merely by
23 looking at it today.

24 MR. JOE: Thank you, Dr. Morlan .
25 This panel is now prepared for cross-examination.

26 THE CHAIRMAN: Thank you. Mr.

1 Pritchard, will you take us through the list, please?

2 MR. PRITCHARD: Mr. Bayly?

3 CROSS-EXAMINATION BY MR. BAYLY:

4 Dr. Morlan, you've referred on
5 page seven of your evidence to the Dempster Highway and we
6 have heard some indication that an application might be made
7 for a lateral along that highway. Can you tell me whether
8 much is known archaeologically in that area, and if not,
9 what sorts of time, what periods of time might be required
10 to bring the level of knowledge up to the level it is at
11 present for the Alaska Highway?

12 DR. MORLAN : As you know, the
13 construction of the Dempster Highway began prior to the
14 enactment of land use regulations, which have provisions to
15 protect archaeological sites, and prior to the kind of
16 constructive process we're undergoing here today. As a
17 result, the archaeologists of the country didn't know about
18 the Dempster Highway until it had already reached beyond
19 the Blackstone River, in fact, I think I first heard about
20 the Dempster Highway when it, the bridge over the Ogilvie
21 was being constructed. So I drove the Dempster Highway as
22 soon as I could and sure enough found three sites in one
23 afternoon that had been exposed by highway construction.
24 Those sites were difficult to evaluate, having been drast-
25 ically disturbed. I don't know whether they would have been
26 of tremendous significance, but it's unfortunate we didn't

1 have the chance to investigate them in advance.

2 We caught up with this project
3 a little later, in one area of the Dempster Highway, which
4 was surveyed intensively, the returns were quite good and
5 in fact revealed a enigmatic archaeological complex, which
6 we don't yet know how to interpret, but which clearly repre-
7 sents an unwritten page in the pre-history of the Yukon,
8 that is still under investigation. There are areas of
9 the Dempster Highway that still remain to be explored
10 archaeologically and we hope that some of that can be ar-
11 ranged.

12 Were a pipeline to be built more
13 or less parallel to the Dempster Highway, and I'm keenly
14 aware that we can say that a pipeline is going to parallel
15 a road and yes, in general that's true, but we end up in
16 Ibex Pass or someplace. I don't know exactly where it might
17 go and as a result I don't know what the likely impact would
18 be. I can observe that there are linear structures in the
19 earth's surface that parallel the highway, on which the
20 highway is built and which would afford a good bed for a
21 pipeline. Those ridges were highways in pre-history, that's
22 where the people could walk and keep their feet dry, get a
23 good view of the landscape, and of course, these were also
24 the sorts of ridges that were followed by game animals
25 sought by people with a subsistence economy, so certainly
26 there would be, we would expect that the Dempster Highway

1 would be a productive area for this kind of work.

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1 Q Given then that what might be
2 potential alignments for a pipeline along the Dempster are
3 also sites which were prehistoric highways for both people
4 and animals, what work, in your opinion, ought to be done
5 prior to giving any go-ahead to construction by archeologists
6 or teams of archeologists?

7 A I think that would depend on
8 large part on the time frame that we ended up with. The
9 proposal by Canadian Artic Gas prompted an extensive feasi-
10 bility study that was funded by the federal government in
11 the Mackenzie Valley and in northern Yukon. That kind of
12 approach to the preparation of a baseline for archeological
13 work was not taken on the Alaska Highway, in response to the
14 Foothills proposal, and perhaps it -- there certainly are
15 sections of the route which I would hope would be explored
16 very quickly should this proposal go ahead.

17 So, there we see two different
18 approaches already to this problem. I think that the time
19 frame would be probably one of the controlling matters. I
20 should hope that the preliminary sorts of archeological
21 work proposed by Foothills along the Alaska Highway would
22 likewise be proposed on the Dempster Highway route and would
23 be carried out promptly.

24 Q Now, you have also stated in
25 your conclusion that the knowledge that we can gain about
26 the people who were here prehistorically in the Yukon is

Mr. R. Morlan
CrEx by Bayly

1 important to us all, the enjoyment of the Yukon. Would you
2 agree with me that it may represent to the native peoples of
3 the Yukon something analogous to the crown jewels, if you
4 like, for people with British origins?

5 A Yes, in a rough way, but I
6 think it's even more -- of much more far reaching signifi-
7 cance than that.

8 Q That may be a poor example.

9 A Perhaps you can recall study-
10 ing history books concerning European history, where your
11 background no doubt lies in the distant past and not so
12 distant past. And perhaps you got fed up learning about the
13 kings and clergymen and dates and fancy places and began, as
14 I did, wondering how the common man on the street used to
15 live, say ten centuries ago. And it was pretty hard to find
16 out from the history books. In fact, it's still hard to
17 find out from the history books and that record is largely
18 told by archeological work on medieval sites, therefore, I
19 would draw that as a comparison with what we hope to learn
20 from archeology. We want to know about the daily life of
21 people in the past. We want to know how they lived on the
22 land, what was their relationship with the land.

23 If I could be premitted a brief di-
24 gression, I mentioned too briefly the question of the extinc-
25 tion of large game animals some ten thousand years ago.
26 This piece of the earth's surface was once occupied by a

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1 very different kind of treeless habitat then we know today.
2 It wasn't the tundra that we know today. It was a drier,
3 more productive habitat, which supported several dozen large
4 game animals. Can you imagine that? Today, we have only
5 three left, the Dall Sheep, the moose and the caribou. When
6 three animals perform a different function in converting the
7 lichens, mosses and willows of the land into the form of
8 usable food that we can enjoy. If we lose anyone of them,
9 we will loose the productivity of a large area of Yukon and
10 Alaska. And when you consider that out of a couple of dozen
11 species of animals performing this kind of function we only
12 have three left, I think that historical perspective throws
13 into fairly sharp relief the sort of responsibility we have.

14 Q And you're suggesting that
15 some of the things we may be able to learn archeologically
16 may help us to do more than appreciate those three species
17 that are left, but to explain why the other nine disappeared
18 and what role man may have had in that disappearance.

19 A That is a subject of on-going
20 investigation by quite a number of people, and the opinions
21 concerning man's role in the extinction process are quite
22 various. They range from the extreme of one professor at
23 the University of Arizona, who says this is due to human
24 over kill, man killed off all those animals, to positions of
25 other palentologists and archeologists and say man had noth-
26 ing to do with it or at least was simply one of many, many

1 contributing factors. So I think that the research we're
2 attempting to complete now on mans role in extinction in
3 this area should give us some indication of the sort of
4 direction we might want to take in the future.

5 Q Thank you very much, sir,
6 those are my question.

7 MR. PRITCHARD: Mr. Morrison

8 CROSS EXAMINATION BY MR. MORRISON

9 MR. MORRISON: Dr. Morlan , I just
10 have a couple of questions. You refer to some important
11 discoveries -- let's go to page 4 of your testimony on the
12 Aishihik one to be particular and you've indicated how im-
13 portant that is in that any activity in the area should be
14 avoided. Let's just put that statement aside for just a
15 second, and perhaps, if you can give us an indication of --
16 now, you have told us that you have been doing field work in
17 the Yukon for ten years. How long has this Aishihik site
18 been known as an important archeological discovery and when
19 was the last time, or is the work on-going on that site?

20 A The Canyon Creek site at
21 the Aishihik River crossing is probably the most frequently
22 investigated site in Yukon prehistory. It was discovered
23 in 1945. Major excavations were opened there in 1948, but
24 did not reach the bottom of the site due to limitations of
25 time and money - as usual, and manpower.

26 In 1959, there was an extensive

1 excavation there which identified fourteen occupied levels
2 and left in doubt the exact age of most of these deposits.

3 In 1966, another excavation was open-
4 ed there and reached the, what we know believe is likely the
5 bottom of the site, although that isn't demonstrated and
6 obtained a very small sample of material associated with
7 a radiocarbodate. A radiocarbon sample that dated to
8 seventy-two hundred years ago. The site has since been
9 visited on numerous occasion by almost every archeologist
10 who has gone into the area, so that the collection continues
11 to grow from surface samples. It's a difficult site to work
12 because the old surfaces that were occupied are not well
13 preserved and the sediment is quite sandy so that the walls
14 of the excavation tend to collapse without special precau-
15 tions being taken. It's simply a matter of avoiding that
16 one spot. The last map I saw of the pipeline alignment had
17 the pipes south of the road at that point and, presumeably,
18 would leave the site out of danger. I just hope it stays
19 off of the road.
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1 Q Well your indications
2 -- could I assume from your explanation of the Aishihik site
3 beginning in 1944 and is continuing to day, the investi-
4 gations, could I assume that basic pattern to be true of the
5 Burwash site and Champagne, basically stretched over a long
6 period of time?

7 A Yes. I should make
8 it clear that when an archaeologist discovers a site, he
9 doesn't necessarily simply go in and dig the whole thing up.
10 The process of excavating a site, no matter how carefully
11 done and how trained the excavator, is also a process of
12 destroying that site. In effect, we're scientifically
13 destroying the site.

14 If it's done properly, we can
15 reconstruct the site on paper, but we always like to leave
16 material in a site as long as it isn't going to be destroyed
17 by some other process or by natural erosion for later
18 excavations, when our own techniques have advanced.

19 Q Dr. Morlan, perhaps
20 another assumption I can put to you, actually probably not
21 assumption -- a phenomenon of the archaeological profession
22 is that you seem to be tied to government funding or educa-
23 tional institution funding which is intermittent to say the
24 least.

25 I think you indicated that
26 earlier here in your explanation.

22 Q Yes. We'll put that
23 distinction in the record. A point to be considered then is
24 that due to the length of time -- and I would take it that
25 the 1944 to present date on a given archaeological site is
26 not unusual anywhere in the world. Archaeological sites are

1 normally worked on over an extensive number of years.

2 A In North America,
3 that's true.

4 Q In North America that
5 is true?

6 A And also in Western
7 Europe, yes.

8 Q Okay. Given that and
9 your suggestion that I think your intimation in relation to
10 the Dempster Highway that perhaps you or your fellow
11 archaeologists should have been allowed to follow the route
12 and mark the sites beforehand, Would you also go as far as
13 saying that perhaps not only a marking of sites, but a
14 development of some sites would have to be undertaken prior
15 to development in any given area?

16 A Perhaps I can answer
17 that by pointing out that most of the sites that we're
18 looking at are extremely small deposits and that we can very
19 quickly recover from them, all the information we would ever
20 get anyway . So we can simply take them out of there and
21 preserve the information and their contents and let the
22 development go ahead.

23 We have no desire to be sand
24 in the wheels of progress, however, some sites are of such
25 monumental significance and there aren't very many of those
26 known in the Yukon, that they should be preserved indefinitely.

1 Some of them should be reconstructed so that we can show
2 people today, exactly what life was like in those places.

3 Q Very good. Just a
4 couple of quick questions to sum up. Dr. Morlan, you're the
5 -- how would we put this -- the reports or the documentation
6 of your annual field work, I would take it that you would
7 prepare some extensive notes to be filed somewhere on an
8 annual basis and the evidence that you collect, you take and
9 put somewhere. Where is this, these notes and where are
10 these pieces of evidence from your ten years work in the
11 Yukon?

12 A They are in the
13 National Museum of Man in Ottawa where they are housed under
14 conditions that permit control of temperature and humidity,
15 so that the indefinite preservation of the material can be
16 insured. The Archaeological Survey also maintains an
17 archives and is equipped to supply copies of the filed report.
18 In addition, has a very active publication series in which
19 annual reports as well as longer technical reports are made
20 available in print.

21 In addition, has recently
22 launched what eventually will be a comprehensive coverage
23 of Canadian prehistory in a popular format.

24 Q Specifically sir, you
25 were now working on the project out of the Old Crow area?

26 A The project I'm working

Dr. Morlan
Cr Ex by Morrison
Cr Ex by Horton

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1 on does include field work in the Old Crow area, however, it
2 covers all unglaciated areas in the Yukon.

3 Q Yes. The material
4 which I will agree with you, is very important to us all. Is
5 there a significant amount of the material that you've
6 collected over these past years, available locally in the
7 library or anywhere?

8 A I consistently send
9 my reports to the library here and will continue to do so in
10 the future. I'm also looking forward to the day when
11 Whitehorse will be the location of an institution that is
12 equipped to house the specimens themselves. At that time,
13 the overcrowded space of the National Museum can be
14 alleviated a little bit.

15 Q You're anticipating
16 my questions Dr. Morlan. I too look forward to that day.
17 Thank you.

18 MR. PRITCHARD: Mr. Horton?

19 CROSS-EXAMINATION BY MR. HORTON:

20 Q Sir, you refer in one
21 place that the -- well, in a couple of places, you make a
22 reference to the effect that many known sites that might
23 possibly be destroyed by pipeline construction can be
24 excavated, salvaged in time. My concern and therefore the
25 reason for asking you the question I'm going to ask, is that
26 the prediction that it can be done in time, might be based

1 on present day assumptions that future events turn around to
2 make faults.

3 Therefore, I ask whether you can
4 provide some specific estimation of the amount of time that
5 is necessary to salvage, excavate and salvage what there is
6 to be found in the known sites. How many months or years or
7 whatever?

8 A I don't think that I
9 can give a very good estimate of that without the knowledge
10 of final route location. These sites are so small, you could
11 miss them by moving the pipeline a hundred feet in many
12 cases and we would not propose to conduct this sort of work
13 outside the required right-of-way if the work is to be funded
14 by the applicant.

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1 Q So then have to first of
2 all wait until the route is finalized right down to the last
3 linear inch, so to speak?

4 A Yes, pretty well. We
5 can certainly work in the area and in many cases we're doing
6 so where such work emerges from ongoing research projects
7 and certainly we have these priorities in mind in framing
8 our research projects these days. We did an evaluation of
9 the Engeeshak(?) site on the Firth River last summer against the
10 possibility that a pipeline must be put past that place.

11 Q Okay -- sorry, I didn't
12 mean to interrupt, I thought you were finished.

13 A -- but I think that the
14 schedule laid out in the application by Foothills is probably
15 adequate to cover this problem of rescue excavation and the
16 identification of those few places where relocation might be
17 requested.

18 Q So you're not at all
19 concerned about running out of time within which to save
20 what there is to be saved of the known sites?

21 A I don't think so, as I
22 read the application.

23 Q How time-consuming would
24 thorough investigation of the ditching, as it goes along, be,
25 for the purpose of ascertaining whether or not the ditch has
26 actually got itself into an archaeological site?

1 A My understanding is that
2 the ditch walls will be examined by engineers who are con-
3 cerned about ice content and other details of that pertain
4 to the structural integrity of the pipe. I believe that
5 archaeologists could certainly keep pace with a party of that
6 kind. I understand that a sedimentary log will be compiled
7 of the ditch walls and serve as a base line for handling
8 emergency repairs and that kind of logging surely will be
9 sufficiently time-consuming to allow archaeologists to
10 examine the walls for their own purposes.

11 Q So then I would be cor-
12 rect in inferring from that answer that the archaeological
13 inspection would not in any way be any sort of impedence
14 on the pipeline construction itself?

15 A No. Nor would we pro-
16 pose in the middle of ditching to carry out excavations of
17 newly discovered sites. This is the reason for asking for a
18 specific plan for flagging the sites and ensuring that the
19 markers would not be disturbed in later phases of the work.

20 Q You've referred to the,
21 what seems to me to be in a way the paradoxical nature of
22 archaeological work in that it involves to a large extent
23 scientific destruction. You've mentioned the one site of
24 great importance that should not be destroyed. Are there
25 other known sites already that should not be destroyed, that
26 should be, at least, just gradually scientifically destroyed

1 over a period of time and preserving what can be preserved
2 for future archaeological techniques to be applied for the
3 two?

4 A Anywhere in the Yukon?

5 Q Along the route, pro-
6 posed route. You've mentioned the one site, I'm just
7 wondering whether that was mentioned only as an example
8 or whether that is, as far as you know right now, an ex-
9 haustive listing.

10 A Unless the pipe is
11 moved from the, pretty drastically, from the route location
12 I've seen, and unless re-examination of sites in the Bur-
13 wash & Champagne concentration should provide surprising
14 results, then I would only identify the Canyon Creek site
15 as being of that kind of lasting importance.

16 MR. HORTON: Those are all the
17 questions I have.

18 MR. PRITCHARD: Mr. Taves?

19 CROSS-EXAMINATION BY MR. TAVES:

20 Q Dr. Morlan , starting
21 on page two and on page three, you state "fewer deeply
22 buried sites of great antiquity would be expected to occur
23 along the Alaska Highway than along those routes
24 which pass through unglaciated land in Northern and
25 Central Yukon". Can you tell me the location of these
26 unglaciated lands in Northern and Central Yukon?

24 MR. PRITCHARD: Is there anybody
25 from the floor who would like to ask a question? Mr.
26 Hollingworth, do you have any questions?

1 MR. HOLLINGWORTH: I have no
2 questions.

3 MR. PRITCHARD: Mr. Chairman, the
4 hour is late but I think it would be a shame to let the
5 expertise of Dr. Morland escape without just a couple of
6 questions.

7 CROSS-EXAMINATION BY MR. PRITCHARD:

8 Q On page five of your
9 evidence, Dr. Morland, you ask four questions which you
10 suggest should be addressed to the Inquiry. I wonder if
11 we might impose on your expertise and ask you to try and
12 give preliminary answers to a couple of those questions.

13 The first question in A -- what
14 means would you suggest for marking newly discovered sites
15 at time of discovery and preserving the markers for later
16 investigation of site contents?

17 A Well, I asked the
18 question because one of the things that I asked several
19 years ago when this first came up was, what sort of means
20 had been used in the past along pipelines to identify areas
21 to which somebody wanted to return. I was told that
22 flags were put up that were supposed to mark these signif-
23 icant spots and that in many cases when the investigators
24 returned following construction, the flags were gone. And
25 had been either accidentally or deliberately removed. I
26 simply was trying to stimulate a discussion. I should hope

1 that a flagging technique could be devised that would not
2 be subject to destruction by changes in weather and would
3 also be safeguarded against deliberate removal.

4 Q Thank you.

5 In paragraph B, you express con-
6 cern about possible limitations which might be placed on
7 the right of access of archaeologists to the pipeline right
8 of way. Do you have any experience with particular kinds
9 of limitations which cause you particular concern?

10 A No, I simply wonder if,
11 I understand that, in effect, the entire right of way is
12 covered by a lease and that the provisions of that lease
13 would permit the pipeline company to control access to the
14 right of way. I was simply trying to stimulate discussion
15 of what sort of access might be permitted and what kind of
16 encroachment toward a buried high pressure line is permis-
17 sible. We have no interest in digging up the pipe but the
18 advantageous aspect of site discovery in a project of this
19 kind might very well be lost if we had to wait until the
20 line is decommissioned before we can go dig up an archaeolo-
21 gical site that appears of great importance.

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1 Q So it would be your recommendation to
2 the Inquiry that this kind of concern be looked at prior
3 to the finalization of the lease of the right-of-way.

4 A And perhaps even we
5 could put some numbers on it. We can dig within five
6 meters or ten meters, or whatever of the pipe. I would
7 be interested in the process of identifying that answer
8 in understanding to what extent the traffic lanes involved
9 in construction continue to define the right-of-way. Are
10 the construction traffic lanes outside the final right-of-
11 way of the pipeline, or are they -- do they continue to
12 remain in it and therefore represent a right-of-way a hundred
13 and twenty feet wide, if that's the figure?

14 Q I take it from paragraph
15 (c) on page five, that it's your recommendation to the
16 Inquiry to depose construction excavations be included in
17 the funded archaeological projects? That's your recommendation?

18 A Yes.

19 Q And further, from
20 paragraph (d), I take it it's your recommendation that a
21 trained archaeologist be included on the environmental
22 inspection team?

23 A That's right.

24 Q Just to complete it then,
25 and follow up slightly from what Mr. Taves asked, with reference
26 to the alternative routes, the Klondike Highway and the Tintina,

1 Trench, which has been proposed, I understand from your
2 evidence that the information is so scarce at this point it
3 is difficult for you to give anything more than a preliminary
4 opinion.

5 But is it possible to assess --
6 could you give an assessment of the archaeological risks of
7 a pipeline coming down the Tintina Trench or the Klondike
8 Highway, compared to the risk of coming down the Alaska
9 Highway?

10 A Well, here I run
11 headlong into this two-edge sword concept again. In terms
12 of site destruction, I'm not that worried about destroying
13 known sites in the sense that once again we can either rescue
14 them or ask that the line be moved.

15 In terms of discovery, it would
16 be -- if anything more exciting to me personally to see a
17 nice deep ditch through unglaciated land. I'm interested
18 in the pleistocene and that's where you're going to get it.
19 But, on the other hand, a ditching machine is a pretty blunt
20 instrument for doing archaeology. I don't know how to
21 anticipate the likelihood of finding sites, you know,
22 comparatively speaking on this line versus this one, but
23 except to say that if we are in unglaciated terrain, we're
24 not going to get anything over ten thousand years ago.

25 MR. PRITCHARD: That's all my
26 questions, Mr. Chairman, perhaps Mr. Joe has re-examination?

1 MR. JOE: No re-direct.

2 MR. CHAIRMAN: Just one question

3 Dr. Morlan, as you will have heard in the course of the
4 evening we have had a good deal of discussion about the
5 Alaskan situation and I'm wondering if you are familiar with
6 the practices that were followed along the route of the
7 Alyeska oil pipeline and if you are, if you can tell us
8 whether there is anything that we can learn about what to
9 do or what not to do, from the Alaskan experience, in this
10 regard?

11 DR. MORLAN: I would hesitate to
12 make recommendations concerning the structure of a project
13 based on the Alaskan experience, because the entire
14 infrastructure as provided by government is quite different.
15 The Department of Interior, the Bureau of Land Management,
16 and a number of other agencies were involved in the very
17 energetic and productive archaeological project that
18 accompanied the Alyeska pipeline project.

19 There were several hundred
20 archaeological sites discovered and excavated in the course
21 of that project, and some of them have proved to be some of
22 the most exciting ones we've ever seen.

23 I think the overall outcome
24 when eventually reported of the archaeological work along
25 Alyeska will advance our knowledge of Alaskan archaeology
26 quite considerably, and therefore, I would say that the final

1 result of that archaeological work was certainly worth the
2 investment.

3 In terms of how the thing was
4 set up and administered, I am at somewhat a loss as to know
5 how to make recommendations, simply because our government's
6 operate so differently.

7 The applicant in that case was
8 certainly responsible for the funding of the project which
9 was then administered through a very complex arrangement
10 and overseen by the Arctic Institute of North America, which
11 provided a supervisory board.

12 I think that previous recommendations
13 have been clear on the point that the Federal Government would
14 assume some kind of monitoring responsibility through its
15 agency responsible for pre-history on Federal Crown land,
16 that being the National Museum of Man, but that the project
17 itself would be devised and staffed probably through contract
18 by the applicant. The manner in which that is done should
19 be left to the discretion of the applicant within the limits
20 of obtaining approval for the arrangements from the National
21 Museum.

22 MR. CHAIRMAN: Dr. Morlan, I would
23 like to thank you very much indeed for the most interesting
24 contribution that you have made to the proceedings of this
25 Inquiry.

26 (WITNESS ASIDE: DR. R.E. MORLAN)

1 MR. CHAIRMAN: Mr. Prichard,
2 would you like to speak to the Order of Proceedings tomorrow
3 morning?

4 MR. PRICHARD: Thank you, Mr.
5 Chairman.

6 We begin again at ten o'clock
7 tomorrow morning at the legion hall. We will begin with
8 Ms. Liz Stewart for Foothills -- Scout, I'm sorry, Ms. Liz
9 Scout for Foothills on native employment. That evidence is
10 and has been available at the Inquiry offices. That
11 evidence will be followed by the CYI's evidence, and I have
12 asked Mr. Joe to speak just very briefly to the order in
13 which he plans to present his evidence in case there is any
14 confusion in that regard.

15 MR. JOE: Yes, in that respect,
16 following Ms. Liz Scout, the socio-economic panel of the
17 Council for Yukon Indians will consist of Miss Julie
18 Cruikshank, and that will be followed by, I believe in the
19 afternoon, by a policy statement by the National Indian
20 Brotherhood, which, I believe, will be read either by the
21 Vice-President, Dennis Nicholas, or by the President, Noel
22 Starblanket. Then we would have the southern support group
23 which would consist of the evidence of Tony Clark, and
24 Wes Mulstead's evidence will be given by Paul Marshall.
25 Also sitting on that panel, but not presenting evidence, but
26 rather assisting Tony Clark would be the Reverend Remi dePoo.

1 MR. CHAIRMAN: Thank you, Mr. Joe.

2 Mr. Hollingworth?

3 MR. HOLLINGWORTH: Do I infer from
4 that that Julie Cruikshank forms a panel of one, starting off
5 the proceedings tomorrow?

6 MR. JOE: That's correct.

7 MR. HOLLINGWORTH: Thank you.

8 MR. CHAIRMAN: That is following
9 Ms. Scout, is it?

10 MR. JOE: Yes.

11 MR. PRICHARD: I might also add,
12 Mr. Chairman, I understand the time constraints on the
13 presentation by National Indian Brotherhood were such that
14 it must come on a two o'clock and it might therefore have to
15 be inserted part way through some other presentation, if
16 that's possible.

17 MR. CHAIRMAN: Well, I'm sure that
18 would be agreeable to all the participants. If that's not
19 the case they will let you know first thing in the morning.

20 All right, we'll adjourn now until
21 ten o'clock in the morning.

22 (PROCEEDINGS ADJOURNED)

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Pipeline Inquiry

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